PB-216 197

ORDINANCE AND CODE REGULATING EATING AND DRINKING ESTABLISHMENTS. 1943 RECOMMENDATIONS OF THE PUBLIC HEALTH SERVICE

Public Health Service
Washington, D. C.

1950

DISTRIBUTED BY:

NTIS

National Technical Information Service
U. S. DEPARTMENT OF COMMERCE
5285 Port Royal Road, Springfield Va. 22151

PB 216 197

PHS Publication No. 37

Ordinance and Code Regulating Eating and Drinking Establishments

1943 Recommendations of the Public Health Service

FEDERAL SECURITY AGENCY • Public Health Service

NATIONAL TECHNICAL INFORMATION SERVICE

Ordinance and Code Regulating Eating and Drinking Establishments

1943 Recommendations of the Public Health Service

Details of illustrations in this document may be better studied on microfiche.

FEDERAL SECURITY AGENCY • Public Health Service
Division of Sanitation of the Bureau of State Services

CONTENTS

	Page
Preface	III
Part I. Short enabling form of U. S. Public Health Service ordinance regulating eating and drinking establishments	1
II. U. S. Public Health Service ordinance regulating eating and drinking establishments	5
III. U. S. Public Health Service code regulating eating and drinking establishments	13
Inspection form for eating and drinking establishments	18
Index to code	55

ILLUSTRATIONS

Figure	1. Satisfactory lavatory facilities and drinking fountain	25
	2. Inadequate dishwashing facilities	25
	3. Satisfactory manual dishwashing facilities	26
	4. Counting bacteria removed from utensils by cotton swabs	35
	5. Satisfactory storage of cups	35
	6. Improper handling of clean glasses	36
	7. Improper handling of clean glass	36
	8. Methods of handling silverware	38
	9. Methods of handling butter	46
	10. Satisfactory storage of pies in closed cabinets	47
	11. Food protected by glass front	47

PREVIOUS EDITIONS OF THE ORDINANCE AND CODE REGULATING EATING AND DRINKING ESTABLISHMENTS RECOMMENDED BY THE UNITED STATES PUBLIC HEALTH SERVICE

(In 1934 minimum restaurant sanitation regulations were proposed for approval by the National Recovery Administrator in connection with Section IV, Article VIII of the Code of Fair Competition for the Restaurant Industry.)

1935. Ordinance only. Mimeographed tentative draft, December 1935.

1938. Ordinance and code. First edition (Tentative). Mimeographed, March 1938.

1940. Ordinance and code. June 1940 edition. Mimeographed.

PREFACE

The following ordinance and code regulating eating and drinking establishments is recommended by the United States Public Health Service for adoption by States, municipalities, counties, and health districts in order to encourage a greater uniformity and a higher level of excellence in the sanitary control of eating and drinking establishments.

This ordinance and code embodies the latest information at present available on legislation relating to the public health supervision of eating and drinking establishments but should be considered subject to change as improvements are developed.

In order that it may have at its command the technical advice of a comprehensive group of experts in the various phases of environmental sanitation, the United States Public Health Service has appointed a board of consultants, termed the "Public Health Service Sanitation Advisory Board," composed of the following members:

Mr. Victor M. Ehlers, director, bureau of sanitary engineering, State board of health, Austin, Tex.

Mr. Ernest Kelly, Assistant Chief, Bureau of Dairy Industry, United States Department of Agriculture, Washington, D. C.

Mr. Herbert A. Kroeze, director, sanitary engineering, State board of health, Jackson, Miss.

Mr. Sol Pincus, deputy commissioner of health, city health department, New York, N. Y.

Mr. Walter D. Tiedeman, chief, bureau of milk sanitation, division of sanitation, State health department, Albany, N. Y.

Mr. Harold A. Whittaker, director, division of sanitation, State health department, Minneapolis, Minn.

Mr. Alfred H. Wieters, director, division of public health engineering and industrial hygiene, State department of health, Des Moines, Iowa.

Advantage has been taken of the recommendations of the Advisory Board in preparing this edition of the ordinance and code. Consideration was given to a number of suggestions from restaurant sanitation seminars sponsored by the Public Health Service, and from other sources.

One alternative form of the ordinance provides for grading and degrading of restaurants and permits enforcement by degrading or permit revocation or both. The other alternative form is of the nongrading type, which provides for only a single set of minimum

requirements for all restaurants (except itinerant restaurants), and uses exclusively the permit revocation method of enforcement. Two short enabling forms of the ordinance are presented in Part I, alternative short form A being of the grading type and alternative short form B of the nongrading type. In the unabridged ordinance presented in Part II, the grading form is obtained by deleting the parentheses signs; and the nongrading form is obtained by the deletion of the words referring to grading, shown within parentheses. It will be noted that the sanitation requirements for grade A restaurants in the grading form of the ordinance are identical with the minimum requirements in the nongrading form.

The code, Part III, should be used as the legal interpretation of the ordinance. It serves to unify the interpretation of the ordinance and therefore to minimize enforcement misunderstandings. It will be noted that section 11 specifies that the ordinance shall be enforced in accordance with the interpretations thereof contained in the code.

PART I

SHORT ENABLING FORM OF U. S. PUBLIC HEALTH SERVICE ORDINANCE REGULATING EATING AND DRINKING ESTABLISHMENTS

(This short form is suggested for adoption by States, municipalities, counties, or health districts, subject to the approval of the local legal authority, to reduce cost of publication and to promote keeping the restaurant ordinance up to date. In many States the adoption of such short form is considered legal.)

ALTERNATIVE SHORT FORM A—GRADING TYPE

ENFORCEABLE BY DEGRADING OR PERMIT REVOCATION OR BOTH [1]

An ordinance to regulate the inspection, grading, regrading, and placarding of eating and drinking establishments, the issuing, suspension, and revocation of permits for the operation of such establishments, the enforcement of this ordinance, and the fixing of penalties; and prohibiting the sale of adulterated, misbranded, or unwholesome food and drink.

The _____ of _____ ordains:

Section 1. The inspection, grading, regrading, and placarding of eating and drinking establishments within the _____ of _____, or its police jurisdiction, the issuing, suspension, and revocation of permits for the operation of such establishments, the sale of adulterated, misbranded, or unwholesome food and drink, the enforcement of this ordinance, and the fixing of penalties shall [2] be regulated in accordance with the terms of the unabridged form of the 1943 edition of the U. S. Public Health Service Ordinance Regulating Eating and Drinking Establishments, a certified copy of

[1] Communities which wish to adopt the short form of the nongrading type of ordinance, and to restrict the health officer to the permit revocation method of punishing violations, should adopt alternative Form B.

[2] Municipalities, counties, and health districts in which the adoption of legislation by reference is not considered legal may delete the remainder of Section 1 after "shall" and substitute the following: "conform with the regulations which the health officer (or Board of Health) of the _____ of _____ may adopt, under authority hereby conferred." If the regulations adopted by the health officer conform to the 1943 edition of the U. S. Public Health Service ordinance regulating eating and drinking establishments, said community will be considered as having adopted the ordinance.

which shall be on file in the office of the City Clerk: *Provided*, That the words "city of _____" in said Public Health Service ordinance shall be understood to refer to the _____ of _____: *Provided further*, That in said ordinance all parentheses signs which enclose words referring to grading shall be understood to be deleted: *Provided further*, That sections 7, 12, and 13 of said Public Health Service ordinance shall be replaced, respectively, by sections 2, 3, and 4 below: *Provided further*, That in section 2 of said ordinance, itinerant restaurants shall _____[3] be required to secure a permit.

Section 2. From and after 12 months from the date on which this ordinance takes effect no restaurants shall be operated within the _____ of _____, or its police jurisdiction, except grade A, grade B[4], or approved itinerant restaurants: *Provided*, That when any restaurant fails to qualify for any of these grades the health officer is authorized to suspend the permit or in lieu thereof to degrade the restaurant and permit its operation during a temporary period not exceeding 30 days.

Section 3. Any person, firm, or corporation violating any provisions of this ordinance shall upon conviction be punished by _____.

Section 4. All ordinances and parts of ordinances in conflict with this ordinance are hereby repealed; and this ordinance shall take effect _____ its adoption and publication.

ALTERNATIVE SHORT FORM B—NONGRADING TYPE

ENFORCEABLE BY PERMIT REVOCATION ONLY

An ordinance to regulate the inspection of eating and drinking establishments, the issuing, suspension, and revocation of permits for the operation of such establishments, the enforcement of this ordinance, and the fixing of penalties; and prohibiting the sale of adulterated, misbranded, or unwholesome food and drink.

The _____ of _____ ordains:

Section 1. The inspection of eating and drinking establishments within the _____ of _____, or its police jurisdiction, the issuing, suspension, and revocation of permits for the operation of such establishments, the sale of adulterated, misbranded, or

---

[3] If the adopting community wishes to require itinerant restaurants to secure permits, the word "also" should be inserted in the blank space. If not, the word "not" should be inserted.

[4] Municipalities in position to do so may delete ", grade B,".

unwholesome food and drink, the enforcement of this ordinance, and the fixing of penalties shall [5] be regulated in accordance with the terms of the unabridged form of the 1943 edition of the U. S. Public Health Service Ordinance Regulating Eating and Drinking Establishments, a certified copy of which shall be on file in the office of the City Clerk: *Provided*, That the words "city of _____" in said Public Health Service ordinance shall be understood to refer to the _____ of _____: *Provided further*, That in said ordinance all parenthetical expressions referring to grading shall be understood to be deleted: *Provided further*, That sections 7, 12, and 13 of said Public Health Service ordinance shall be replaced, respectively, by sections 2, 3, and 4 below: *Provided further*, That in section 2 of said ordinance, itinerant restaurants shall _____ [6] be required to secure a permit.

Section 2. From and after 12 months from the date on which this ordinance takes effect no restaurant shall be operated within the _____ of _____, or its police jurisdiction, unless it conforms with the requirements of said ordinance: *Provided*, That when any restaurant fails to qualify the health officer is authorized to suspend the permit.

Section 3. Any person, firm, or corporation violating any provisions of this ordinance shall upon conviction be punished by _____.

Section 4. All ordinances and parts of ordinances in conflict with this ordinance are hereby repealed; and this ordinance shall take effect _____ its adoption and publication.

---

[5] Municipalities, counties, and health districts in which the adoption of legislation by reference is not considered legal may delete the remainder of Section 1 after "shall" and substitute the following: "conform with the regulations which the health officer (or Board of Health) of the _____ of _____ may adopt, under authority hereby conferred." If the regulations adopted by the health officer conform to the 1943 edition of the U. S. Public Health Service ordinance regulating eating and drinking establishments, said city will be considered as having adopted the ordinance.

[6] If the adopting community wishes to require itinerant restaurants to secure permits, the word "also" should be inserted in the blank space. If not, the word "not" should be inserted.

PART II

U. S. PUBLIC HEALTH SERVICE ORDINANCE REGULATING EATING AND DRINKING ESTABLISHMENTS

(This unabridged form of the ordinance should be adopted only where the short enabling form in Part I is not considered legal.)

An ordinance defining restaurant, itinerant restaurant, employee, utensils, health officer, etc., requiring permits for the operation of such establishments, prohibiting the sale of adulterated, unwholesome or misbranded food or drink, regulating the inspection (grading, regrading, and placarding)[1] *of such establishments, the enforcement of this ordinance, and the fixing of penalties.*

Be it ordained by the ---------- of the city[2] of ---------- as follows:

Section 1. *Definitions.*—The following definitions shall apply in the interpretation and the enforcement of this ordinance:

A. *Restaurant.*—The term "restaurant" shall mean restaurant, coffee shop, cafeteria, short order cafe, luncheonette, tavern, sandwich stand, soda fountain, and all other eating or drinking establishments, as well as kitchens or other places in which food or drink is prepared for sale elsewhere.

B. *Itinerant restaurant.*—The term "itinerant restaurant" shall mean one operating for a temporary period in connection with a fair, carnival, circus, public exhibition, or other similar gathering.

C. *Employee.*—The term "employee" shall mean any person who handles food or drink during preparation or serving, or who comes in contact with any eating or cooking utensils, or who is employed in a room in which food or drink is prepared or served.

D. *Utensils.*—"Utensils" shall include any kitchenware, tableware, glassware, cutlery, utensils, containers, or other equipment with which food or drink comes in contact during storage, preparation, or serving.

---

[1] Municipalities which wish to adopt the nongrading type of ordinance and to restrict the health officer to the permit revocation method of punishing violations should delete all parenthetical expressions referring to grading throughout the ordinance. Municipalities desiring to adopt the grading type of ordinance, enforceable by degrading or permit revocation or both, should instead delete the parentheses signs only. In either case, the corresponding footnote should also be deleted.

[2] Substitute proper legal jurisdiction here and in all similar places throughout the ordinance.

Preceding page blank

E. *Health officer.*—The term "health officer" shall mean the _____[2] of the city of _____ or his authorized representative.

F. *Person.*—The word "person" shall mean person, firm, corporation, or association.

Section 2. *Permits.*—It shall be unlawful for any person to operate a restaurant in the city of _____ who does not possess an unrevoked permit from the health officer. Such permit shall be posted in a conspicuous place. Only persons who comply with the requirements of this ordinance shall be entitled to receive and retain such a permit. A person conducting an itinerant restaurant shall _____[4] be required to secure a permit.

Such a permit may be temporarily suspended by the health officer upon the violation by the holder of any of the terms of this ordinance, or revoked after an opportunity for a hearing by the health officer upon serious or repeated violation.

(Section 3. *Placarding or public display of grade notice.*—Every restaurant shall display at all times in a place designated by the health officer, a notice approved by the health officer, stating the grade of the establishment.)[5]

Section 4. *Examination and condemnation of unwholesome or adulterated food or drink.*—Samples of food, drink, and other substances may be taken and examined by the health officer as often as may be necessary for the detection of unwholesomeness or adulteration. The health officer may condemn and forbid the sale of, or cause to be removed or destroyed, any food or drink which is unwholesome or adulterated.

Section 5. *Inspection of restaurants.*—At least once every 6 months the health officer shall inspect every restaurant located within the city of _____. In case the health officer discovers the violation of any item of sanitation (required for the grade then held),[5] he shall make a second inspection after the lapse of such time as he deems necessary for the defect to be remedied, and the second inspection shall be used in determining compliance with the (grade)[5] requirements of this ordinance. Any violation of the same item of this ordinance on such second inspection shall call for immediate (degrading or)[5] suspension of permit.

One copy of the inspection report shall be posted by the health officer upon an inside wall of the restaurant, and said inspection report shall not be defaced or removed by any person except the health offi-

---

[2] Insert title of legally constituted health authority.

[4] If the adopting community wishes to require itinerant restaurants to secure permits, the word "also" should be inserted in the blank space. If not, the word "not" should be inserted.

[5] See footnote 1, p. 5.

cer. Another copy of the inspection report shall be filed with the records of the health department.

The person operating the restaurant shall upon request of the health officer permit access to all parts of the establishment and shall permit copying any or all records of food purchased.

Section 6. (*The grading of restaurants.*—The grading of all restaurants shall be based upon the following standards.)[1]

Sanitation requirements for (grade A)[1] restaurants.—All (grade A)[1] restaurants shall comply with all of the following items of sanitation.

Item 1. *Floors.*—The floors of all rooms in which food or drink is stored, prepared, or served, or in which utensils are washed, shall be of such construction as to be easily cleaned, shall be smooth, and shall be kept clean and in good repair.

Item 2. *Walls and ceilings.*—Walls and ceilings of all rooms shall be kept clean and in good repair. All walls and ceilings of rooms in which food or drink is stored or prepared shall be finished in light color. The walls of all rooms in which food or drink is prepared or utensils are washed shall have a smooth, washable surface up to the level reached by splash or spray.

Item 3. *Doors and windows.*—When flies are prevalent, all openings into the outer air shall be effectively screened and doors shall be self-closing, unless other effective means are provided to prevent the entrance of flies.

Item 4. *Lighting.*—All rooms in which food or drink is stored or prepared or in which utensils are washed shall be well lighted.

Item 5. *Ventilation.*—All rooms in which food or drink is stored, prepared, or served, or in which utensils are washed, shall be well ventilated.

Item 6. *Toilet facilities.*—Every restaurant shall be provided with adequate and conveniently located toilet facilities for its employees, conforming with the ordinances of the city of ----------. In restaurants hereafter constructed toilet rooms shall not open directly into any room in which food, drink, or utensils are handled or stored. The doors of all toilet rooms shall be self-closing. Toilet rooms shall be kept in a clean condition, in good repair, and well lighted and ventilated. Hand-washing signs shall be posted in each toilet room used by employees. In case privies or earth closets are permitted and used, they shall be separate from the restaurant building, and shall be of a sanitary type constructed and operated in conformity with the standards of the State board of health.

Item 7. *Water supply.*—Running water under pressure shall be easily accessible to all rooms in which food is prepared or utensils

[1] See footnote 1, p. 5.

are washed, and the water supply shall be adequate, and of a safe, sanitary quality.

Item 8. *Lavatory facilities.*—Adequate and convenient hand-washing facilities shall be provided, including hot and cold running water, soap, and approved sanitary towels. The use of a common towel is prohibited. No employee shall resume work after using the toilet room without first washing his hands.

Item 9. *Construction of utensils and equipment.*—All multi-use utensils and all show and display cases or windows, counters, shelves, tables, refrigerating equipment, sinks, and other equipment or utensils used in connection with the operation of a restaurant shall be so constructed as to be easily cleaned and shall be kept in good repair. Utensils containing or plated with cadmium or lead shall not be used: *Provided*, That solder containing lead may be used for jointing.

Item 10. *Cleaning and bactericidal treatment of utensils and equipment.*—All equipment, including display cases or windows, counters, shelves, tables, refrigerators, stoves, hoods, and sinks, shall be kept clean and free from dust, dirt, insects, and other contaminating material. All cloths used by waiters, chefs, and other employees shall be clean. Single-service containers shall be used only once.

All multi-use eating and drinking utensils shall be thoroughly cleaned and effectively subjected to an approved bactericidal process after each usage. All multi-use utensils used in the preparation or serving of food and drink shall be thoroughly cleaned and effectively subjected to an approved bactericidal process immediately following the day's operation. Drying cloths, if used, shall be clean and shall be used for no other purpose.

No article, polish, or other substance containing any cyanide preparation or other poisonous material shall be used for the cleansing or polishing of utensils.

Item 11. *Storage and handling of utensils and equipment.*—After bactericidal treatment utensils shall be stored in a clean, dry place protected from flies, dust, and other contamination, and shall be handled in such a manner as to prevent contamination as far as practicable. Single-service utensils shall be purchased only in sanitary containers, shall be stored therein in a clean, dry place until used, and shall be handled in a sanitary manner.

Item 12. *Disposal of wastes.*—All wastes shall be properly disposed of, and all garbage and trash shall be kept in suitable receptacles, in such manner as not to become a nuisance.

Item 13. *Refrigeration.*—All readily perishable food and drink shall be kept at or below 50° F. except when being prepared or served. Waste water from refrigeration equipment shall be properly disposed of.

Item 14. *Wholesomeness of food and drink.*—All food and drink shall be clean, wholesome, free from spoilage, and so prepared as to be safe for human consumption. All milk, fluid milk products, ice cream, and other frozen desserts served shall be from approved sources. Milk and fluid milk products shall be served in the individual original containers in which they were received from the distributor or from a bulk container equipped with an approved dispensing device: *Provided*, That this requirement shall not apply to cream, which may be served from the original bottle or from a dispenser approved for such service. All oysters, clams, and mussels shall be from approved sources, and if shucked shall be kept until used in the containers in which they were placed at the shucking plant.

Item 15. *Storage, display, and serving of food and drink.*—All food and drink shall be so stored, displayed, and served as to be protected from dust, flies, vermin, depredation and pollution by rodents, unnecessary handling, droplet infection, overhead leakage, and other contamination. No animals or fowls shall be kept or allowed in any room in which food or drink is prepared or stored. All means necessary for the elimination of flies, roaches, and rodents shall be used.

Item 16. *Cleanliness of employees.*—All employees shall wear clean outer garments and shall keep their hands clean at all times while engaged in handling food, drink, utensils, or equipment. Employees shall not expectorate or use tobacco in any form in rooms in which food is prepared.

Item 17. *Miscellaneous.*—The premises of all restaurants shall be kept clean and free of litter or rubbish. None of the operations connected with a restaurant shall be conducted in any room used as living or sleeping quarters. Adequate lockers or dressing rooms shall be provided for employees' clothing and shall be kept clean. Soiled linens, coats, and aprons shall be kept in containers provided for this purpose.

(*Grade B restaurants.*—Grade B restaurants are those which fail to comply with item 1, 2, 4, 5, or 17, but which conform with all other items of sanitation required for grade A restaurants.)[5]

(*Grade C restaurants.*—Grade C restaurants are those which fail to comply with either the grade A or the grade B requirements.)[5]

Itinerant restaurants.—Itinerant restaurants shall be constructed and operated in an approved manner.

Section 7. (*Grades of*)[5] *restaurants which may operate.*—From and after 12 months from the date on which this ordinance takes effect no restaurant shall be operated within the city of _____, or its police jurisdiction, unless it conforms with the (grade A, or

[5] See footnote 1, p. 5.

grade B,[6] or approved itinerant restaurant)[5] requirements of this ordinance: *Provided*, That when any restaurant fails to qualify (for any of these grades)[5] the health officer is authorized to suspend the permit (or in lieu thereof to degrade the restaurant and permit its operation during a temporary period not exceeding 30 days).[5]

Section 8. *Reinstatement of permit (; supplementary regrading).*[5]—Any restaurant (the grade of which has been lowered and all grade displays have been changed accordingly, or)[5] the permit of which has been suspended may at any time make application for (regrading or)[5] the reinstatement of the permit.

Within one week after the receipt of a satisfactory application, accompanied by a statement signed by the applicant to the effect that the violated provision or provisions of this ordinance have been conformed with, the health officer shall make a reinspection, and thereafter as many additional reinspections as he may deem necessary to assure himself that the applicant is again complying with the (higher grade)[5] requirements, and, in case the findings indicate compliance, shall (award the higher grade or)[5] reinstate the permit.

Section 9. *Disease control.*[7]—No person who is affected with any disease in a communicable form or is a carrier of such disease shall work in any restaurant, and no restaurant shall employ any such person or any person suspected of being affected with any disease in a communicable form or of being a carrier of such disease. If the restaurant manager suspects that any employee has contracted any disease in a communicable form or has become a carrier of such disease he shall notify the health officer immediately. A placard containing this section shall be posted in all toilet rooms.

Section 10. *Procedure when infection suspected.*—When suspicion arises as to the possibility of transmission of infection from any restaurant employee the health officer is authorized to require any or all of the following measures: (1) the immediate exclusion of the employee from all restaurants; (2) the immediate closing of the restaurant concerned until no further danger of disease outbreak exists, in the opinion of the health officer; (3) adequate medical examinations of the employee and of his associates, with such laboratory examinations as may be indicated.

Section 11. *Enforcement interpretation.*—This ordinance shall be enforced by the health officer in accordance with the interpretations thereof contained in the 1943 edition of the U. S. Public Health Service

---

[5] See footnote 1, p. 5.

[6] Municipalities in position to do so may delete ", or grade B".

[7] Communities which desire to include a specific health examination requirement may do so if their official facilities for making the examinations are adequate. For a suggested wording for such a requirement, see the code discussion following section 9 in Part III.

Code Regulating Eating and Drinking Establishments, a certified copy of which shall be on file at the City Clerk's office.[8]

Section 12. *Penalties.*—Any person who violates any provision of this ordinance shall be fined not more than ---------- at the discretion of the court having jurisdiction. Each and every violation of the provisions of this ordinance shall constitute a separate offense.

Section 13. *Repeal and date of effect.*—All ordinances and parts of ordinances in conflict with this ordinance are hereby repealed, and this ordinance shall be in full force and effect immediately upon its adoption and its publication as provided by law.

Section 14. *Unconstitutionality clause.*—Should any section, paragraph, sentence, clause, or phrase of this ordinance be declared unconstitutional or invalid for any reason, the remainder of said ordinance shall not be affected thereby.

---

[8] See footnote 2, p. 1.

PART III

U. S. PUBLIC HEALTH SERVICE CODE REGULATING EATING AND DRINKING ESTABLISHMENTS

(To be used as the legal interpretation of the ordinance)

An ordinance defining restaurant, itinerant restaurant, employee, utensils, health officer, etc., requiring permits for the operation of such establishments, prohibiting the sale of adulterated, unwholesome or misbranded food or drink, regulating the inspection (, grading, regrading, and placarding)[1] *of such establishments, the enforcement of this ordinance, and the fixing of penalties.*

Be it ordained by the _____ of the city[2] *of _____ as follows:*

SECTION 1. DEFINITIONS

The following definitions shall apply in the interpretation and the enforcement of this ordinance:

A. *Restaurant.—The term "restaurant" shall mean restaurant, coffee shop, cafeteria, short order cafe, luncheonette, tavern, sandwich stand, soda fountain, and all other eating or drinking establishments, as well as kitchens or other places in which food or drink is prepared for sale elsewhere.*

B. *Itinerant restaurant.—The term "itinerant restaurant" shall mean one operating for a temporary period in connection with a fair, carnival, circus, public exhibition, or other similar gathering.*

For sanitation requirements for itinerant restaurants see end of section 6.

C. *Employee.—The term "employee" shall mean any person who handles food or drink during preparation or serving, or who comes in contact with any eating or cooking utensils, or who is employed in a room in which food or drink is prepared or served.*

D. *Utensils.—"Utensils" shall include any kitchenware, tableware, glassware, cutlery, utensils, containers, or other equipment with which food or drink comes in contact during storage, preparation, or serving.*

---

[1] Municipalities which wish to adopt the nongrading type of ordinance and to restrict the health officer to the permit revocation method of punishing violations should delete all parenthetical expressions referring to grading throughout the ordinance. Municipalities desiring to adopt the grading type of ordinance, enforceable by degrading or permit revocation or both, should instead delete the parentheses signs only. In either case, the corresponding footnote should also be deleted.

[2] Substitute proper legal jurisdiction here and in all similar places throughout the ordinance.

Preceding page blank

E. *Health officer.—The term "health officer" shall mean the* _____ _____[3] *of the city of* _____ *or his authorized representative.*

F. *Person.—The word "person" shall mean person, firm, corporation, or association.*

SECTION 2. PERMITS

It shall be unlawful for any person to operate a restaurant in the city of _____ *who does not possess an unrevoked permit from the health officer. Such permit shall be posted in a conspicuous place. Only persons who comply with the requirements of this ordinance shall be entitled to receive and retain such a permit. A person conducting an itinerant restaurant shall* _____[4] *be required to secure a permit.*

Such a permit may be temporarily suspended by the health officer upon the violation by the holder of any of the terms of this ordinance, or revoked after an opportunity for a hearing by the health officer upon serious or repeated violation.

Where the grading form of the ordinance is in effect, it is not the intent of this section to require annual permits. In such cases the permit is of value primarily as a registration device. It permits the health officer to prosecute any persons who begin operating a restaurant without notifying him, and thus without being graded. The grading principle of the ordinance makes it unnecessary that the permit be renewed annually, inasmuch as the continuous announcement of grades through grade placards as determined by periodic inspection is equivalent to the periodic granting of permits.

Where the nongrading form of the ordinance is in effect, the health officer may find it advantageous to require annual permits, and to refuse to issue or renew such permits unless the ordinance requirements are satisfied.

This section authorizes the health officer to suspend or revoke the permit for cause. Suspension of the permit for violation of the sanitation items of section 6 is provided for in section 5 and is discussed in the Code material under section 5. When any of the provisions of this ordinance other than the sanitation items of section 6 are found to be violated, regardless of whether the grading or the nongrading form of the ordinance is in effect, the restaurant is subject to suspension of permit. Section 2 authorizes the health officer to suspend permits temporarily without a hearing. Such authority is necessary in order to permit prompt action for any violation in emergencies when there is a serious health hazard.

---

[3] Insert title of legally constituted health authority.

[4] If the adopting community wishes to require itinerant restaurants to secure permits, the word "also" should be inserted in the blank space. If not, the word "not" should be inserted.

The permit may be revoked permanently for serious or repeated violations of any provision of any section of the ordinance. An opportunity for a hearing must be provided before such revocation.

The procedure governing reinstatement of the permit following suspension is given in section 8.

(SECTION 3. PLACARDING OR PUBLIC DISPLAY OF GRADE NOTICE

Every restaurant shall display at all times, in a place designated by the health officer, a notice approved by the health officer, stating the grade of the establishment).[3]

Where the grading form of the ordinance is in effect and restaurants of a grade lower than grade A are permitted to operate, it is imperative that the health officer rigidly enforce proper grade display by all restaurants and similar establishments, in order that customers may be informed of the grade thereof. The grade display is the means whereby the competitive effect of grading tends to improve restaurant sanitation.

Immediately upon the degrading of any restaurant the health officer should require that all grade displays be changed. This may be done by means of rubber stamps or stickers indicating the lower grade. The health officer should carry with him on all inspections the necessary rubber stamps and stickers.

The grade notice may be displayed on menu cards or boards or upon a separate placard, and shall be of a type and in a location approved by the health officer as being readily visible to the patrons. A suggested form of placard is shown below:

THIS ESTABLISHMENT

COMPLIES WITH SANITATION STANDARDS FOR

GRADE

A

RESTAURANT

U. S. PUBLIC HEALTH SERVICE STANDARD

(OR _____ HEALTH DEPARTMENT STANDARD)

_____ HEALTH DEPARTMENT

[3] See footnote 1, p. 5.

SECTION 4. EXAMINATION AND CONDEMNATION OF UNWHOLESOME OR ADULTERATED FOOD OR DRINK

Samples of food, drink, and other substances may be taken and examined by the health officer as often as may be necessary for the detection of unwholesomeness or adulteration. The health officer may condemn and forbid the sale of, or cause to be removed or destroyed, any food or drink which is unwholesome or adulterated.

While this section authorizes the health officer to examine and condemn food or drink which is unwholesome or adulterated, the local health officer will usually find it most practicable to limit such action to spoiled foods, those suspected of having caused or being able to cause food-poisoning outbreaks, or other conditions which may involve an immediate health hazard, and to refer those cases of suspected adulteration and misbranding which involve no immediate health hazard to the State food control officials or to the U. S. Food and Drug Administration.

When cases of food poisoning are reported an immediate epidemiological and laboratory investigation should be made by the local or State health department in an effort to determine the vehicle and the source so as to prevent a recurrence. Section 10 gives the health officer full power to act when infection is suspected. The procedure to be followed in food-poisoning outbreaks is discussed in *Food Control* by J. H. Shrader (1939), pp. 63–69.

Samples for the determination of adulteration and misbranding should be taken and examined in accordance with the methods prescribed by the Association of Official Agricultural Chemists.

SECTION 5. INSPECTION OF RESTAURANTS

At least once every 6 months the health officer shall inspect every restaurant located within the city of _____. In case the health officer discovers the violation of any item of sanitation (required for the grade then held),[5] he shall make a second inspection after the lapse of such time as he deems necessary for the defect to be remedied, and the second inspection shall be used in determining compliance with the (grade)[5] requirements of this ordinance. Any violation of the same item of this ordinance on such second inspection shall call for immediate (degrading or)[5] suspension of permit.

One copy of the inspection report shall be posted by the health officer upon an inside wall of the restaurant, and said inspection report shall not be defaced or removed by any person except the health officer. Another copy of the inspection report shall be filed with the records of the health department.

---

[5] See footnote 1, p. 5.

The person operating the restaurant shall upon request of the health officer permit access to all parts of the establishment and shall permit copying any or all records of food purchased.

The first sentence of this section should *not* be taken to imply that one inspection every 6 months is a desirable frequency. It should instead be regarded as the legal minimum. In actual practice it is desirable to inspect every restaurant at least every 3 months.

Special attention is directed to the requirement that a restaurant shall be immediately degraded and the grade notice changed, or the permit suspended, if two successive inspections disclose violation of the same item.

Experience has demonstrated conclusively that a strict enforcement of the ordinance leads to a far better and more friendly relationship between the health officer and the industry than does a policy of enforcement which seeks to excuse violations and defer punishment therefor. The inspector's criterion of satisfactory compliance should be neither too lenient on the one hand nor unreasonably stringent on the other. Violations of minor or insignificant degree should not be entered as a violation on the inspection form but should be called to the management's attention and should be entered as a remark.

Whenever a violation is discovered the inspector should point out to the management the requirement that has been violated, should explain the the public health reason for the requirement, and should suggest methods for correcting the defect. An educational rather than a policeman type of approach is recommended.

The penalty of degrading or suspension of permit is provided in order to prevent continued violation of the provisions of this ordinance, but the wording is designed to protect the industry against unreasonable or dictatorial action. Of course, when a condition is found which constitutes an imminent health hazard prompt action is necessary in order to protect the public health; therefore, the health officer is authorized by section 2 to suspend the permit immediately. However, except for such emergencies, no penalty is inflicted on the restaurant upon the first violation of any of the items of sanitation listed in section 6. A restaurant found violating any item must first be notified in writing, and must be given a reasonable period of time in which to correct the defect before a second inspection is made. After receipt of the notice of violation, but before the allotted time has elapsed, the management has an opportunity to appeal to the health officer or board of health from the inspector's interpretation or for an extension of the time allowed for correction. Not until the second inspection has revealed failure to correct the defect is the restaurant subject to degrading or suspension of permit. Even then the management still has the

legal right to refuse to display the lower grade notice or to continue operating after the permit has been suspended, and to rely for vindication upon court action instituted by the health officer. It is only fair to state, however, that the courts usually sustain the health officer unless the ordinance requirement or interpretation is proved to be unreasonable.

Violation of any of the provisions of this ordinance other than the sanitation items given in section 6 is punishable only by suspension or revocation of permit, even where the grading form of the ordinance is in effect. For the procedure in such cases, see the Code discussion under section 2.

The accompanying restaurant inspection form, Form 8967, based on the requirements of this edition of the ordinance and code is available for purchase from the Superintendent of Documents, Government Printing Office, Washington, D. C., at 35c per 100 (check, money order, or cash with order—no stamps). When this form is used where the nongrading type of ordinance is in effect, references to the grade notice, degrading, and grade letters should be disregarded. A convenient loose-leaf ledger form, Form 8976–F, for posting inspection and laboratory records is available at $1.25 per 100.

The inspector should not fail to post one copy of the inspection report at the restaurant. If inspections are made in the absence of the owner or manager the inspection report should be posted nevertheless, but in addition a written notification should be mailed to the owner or manager.

SECTION 6. THE GRADING OF RESTAURANTS

The grading of all restaurants shall be based upon the following standards.[5]

This ordinance does not require the periodic announcement of the grades of the restaurants in the community. Publishing the names of the establishments of different grades would require much space and is not necessary because prospective customers may ascertain the grade of an establishment from the grade placard required by section 3. However, health officials periodically should issue news releases which include the following points:

(1) The supervision of the local eating and drinking establishments is a public health activity designed to minimize the spread of certain diseases. This activity is beneficial both to the public and to the restaurant personnel.

(2) The restaurants are graded according to their compliance with sanitation requirements. Grade A establishments are the safest, grade

[5] See footnote 1, p. 5.

Form 5062
Revised 1943
PUBLIC HEALTH SERVICE

Inspection Form for Eating and Drinking Establishments

Type _____
Number served daily _____
Any kitchen maintained elsewhere? _____

Sources
Milk _____
Cream _____
Ice Cream _____
Shellfish _____ (city, county, or district)

NAME _____ ADDRESS _____

SIR: An inspection of your premises has this day been made, and you are notified of the defects marked below with a cross (x). Violation of the same item on two successive inspections requires immediate degrading or suspension of permit. All mean cards or boards shall display grade _____ notice.

*Item No.**

(1) Floors.—Easily cleanable construction, smooth, good repair ( ); coved ( ); cleaned only after closing or between meals ( ), by dustless methods ( ) ____ (B)

(2) Walls and ceilings.—All: clean, good repair ( ); kitchen light color ( ), walls smooth, washable to heel of splash ( ) ____ (B)

(3) Doors and windows.—Outer openings with effective screens and outward-opening, self-closing doors, or fly-repellent fans, or flies present ____ (C)

(4) Lighting.—Natural or artificial light equivalent to 10 foot-candles on working surfaces (except in dining room), 4 in storage rooms ____ (B)

(5) Ventilation.—All rooms (except cold storage) reasonably free of odors and condensation ____ (B)

(6) Toilet facilities.—Comply with plumbing code ( ); adequate, conveniently located for employees ( ); good repair, clean, no flies ( ); well lighted, outside ventilation ( ); in new establishments, no direct opening ( ); self-closing doors ( ); washing sign for employees ( ); privies, if used, comply State standards ( ) ____ (C)

(7) Water supply.—Running water accessible as required ( ); supply adequate ( ); safe, complies State standards ( ) ____ (C)

(8) Lavatory facilities.—Adequate, convenient ( ); hot and cold running water ( ); soap ( ); sanitary towels ( ); hands washed after toilet ( ) ____ (C)

(9) Construction of utensils and equipment.—Easily cleanable construction, no corrosion ( ); good repair, no open seams or chipped or cracked dishes ( ); no corrosion or lead utensils ( ) ____ (C)

(10a) Cleaning of equipment and utensils.—Clean ovens, broilers, kitchen, holding, food, drink, refrigerating, storage, racks ( ); dish cloths used by employees ( ); single-service cups, glasses, straws, cups used only once ( ); eating and drinking utensils thoroughly cleaned after each use ( ); other utensils cleaned each day ( ); suitable detergent used ( ); no cyanide or other poisonous compounds ( ) ____ (C)

(10b) Bactericidal treatment of eating and cooking utensils.—Approved bactericidal treatment after cleaning: Immersed 2 minutes in 170° F. water, or one-half minute in boiling water, or 2 minutes in approved chlorine rinse; or kept in steam cabinet 15 minutes at 200° F.; or in boiling cabinet 20 minutes at 180° F. ( ); entrance have thermometer in cooler zone ( ); large utensils adequately treated with live steam, boiling water, or chlorine spray or swab ( ); dishwashing machine properly operated ( ); Utensils rinsed; bacterial count ____; drying cloths, if used, kept clean and used for no other purpose ( ) ____ (C)

*Item No.**

(11) Storage and handling of utensils.—Stored above floor in clean place protected from flies, splash, dust, etc., inverted or covered when practicable ( ); no handling of contact surfaces ( ); single-service cups, straws, etc., purchased in sanitary cartons, kept in clean dry place, and properly handled ( ); dispensing spoons, dippers kept in hot or running water ( ) ____ (C)

(12) Disposal of wastes.—Liquid wastes into public sewer or an approved [illegible] ( ); no connection or backsiphonage into water supply, washing machines, or sinks ( ); garbage stored in tight, nonabsorbent, washable receptacles, covered pending removal ( ), removed frequently and receptacles washed to prevent nuisance ( ) ____ (C)

(13) Refrigeration.—Readily perishable foods (including cream-filled pastry, meats, milk, etc., some Code) stored at 50° F. or less ( ); ice stored and handled in approved manner ( ); drip outlets open trapped drain or pan ( ) ____ (C)

(14) Wholesomeness of food and drink.—Wholesome, clean, no spoilage, protected source for human consumption ( ); excess filled water-tight, rodent-tight, filling adequately cooked, and promptly cooled ( ); milk, fluid milk products, frozen desserts from approved sources ( ); milk, etc., served in original bottles or from approved bulk dispenser ( ); shellfish from approved sources ( ); shucked shellfish kept in original containers ( ) ____ (C)

(15) Storage, display, and service of food and drink.—No contamination by unprotected storage or subsequent handling ( ); not on floor, protect to shield from seepage, [illegible] ( ); minimum manual contact with food and drink ( ); no open display ( ); no animals or fowls ( ); structure rat-proofed ( ); flies, roaches, and rats under control ( ); no introduced poisonous insecticides or rodenticides ( ) ____ (C)

(16) Cleanliness of employees.—Clean outer garments, used for no other purpose ( ); hands clean ( ); no spitting, no tobacco used where food prepared ( ) ____ (C)

(17) Miscellaneous.—Premises kept neat and clean ( ); no operations in living or sleeping rooms ( ); clean, adequate lockers for employees' clothing, not in kitchen ( ); soiled linens, coats, aprons kept in containers ( ) ____ (B)

(Sec. 9) Disease control.—No person at work with any communicable disease, sores, or infected wounds ( ); Section 9 posted in all toilets ( ); employees' health certificates (if required locally) ( ) ____ ( )

REMARKS: _____

Date _____ _____
Inspector.

*Sections listed as corresponding to those for Grade A in the U. S. Public Health Service Recommended Ordinance. For "Standard requirements" see Code in force.

19-2

B places have failed to comply with one or more of the less important requirements, and grade C restaurants have violated one or more of the important items of sanitation. Grade C places are permitted to operate for only a temporary period of 30 days or less; it is a penalty grade which was provided in the ordinance so as to permit restaurants which fail to comply to continue to operate during a short grace period while improvements are being made.

(3) Patrons should look for the grade before patronizing an establishment, and should patronize only the grade A places.

SANITATION REQUIREMENTS FOR (GRADE A)[1] RESTAURANTS

All (grade A)[1] restaurants shall comply with all of the following items of sanitation.

A convenient summary of the following sanitation requirements for restaurants will be found in the restaurant inspection form (see section 5).

ITEM 1. FLOORS

The floors of all rooms in which food or drink is stored, prepared, or served, or in which utensils are washed, shall be of such construction as to be easily cleaned, shall be smooth, and shall be kept clean and in good repair.

Public-health reason.—Properly constructed floors which are in good repair can be more easily kept clean than improperly constructed floors. Kitchen floors having an impervious surface can be cleaned more easily than floors constructed of a pervious or easily disintegrated material, will not absorb organic matter, and are, therefore, more likely to be kept clean and free of odors. Clean floors are conducive to clean food-handling methods.

Satisfactory compliance.—This item shall be deemed to have been satisfied if:

(1) The floors of all rooms in which food or drink is stored, prepared, or served are of such construction as to be easily cleaned, are smooth, and are in good repair. Floors may be of concrete, terrazzo, tile, etc., or wood covered with linoleum, or tight wood. Wooden floors containing cracks, holes, or broken or poorly fitting planks, or which otherwise fail to be tight, do not comply with this item. If floor drains are used they shall be provided with proper traps and so constructed as to minimize clogging, and the floor should be graded to drain.

(2) All floors are kept clean and free from litter during the hours of preparing, cooking, and serving of food. Dustless methods of floor cleaning shall be used, or dust-arresting sweeping compounds and push-brooms employed; and all except emergency floor cleaning shall

[1] See footnote 1, p. 5.

be done during those periods when the least amount of food and drink is exposed, such as after closing or between meals.

ITEM 2. WALLS AND CEILINGS

Walls and ceilings of all rooms shall be kept clean and in good repair. All walls and ceilings of rooms in which food or drink is stored or prepared shall be finished in light color. The walls of all rooms in which food or drink is prepared or utensils are washed shall have a smooth, washable surface up to the level reached by splash or spray.

Public-health reason.—Painted or otherwise properly finished walls and ceilings are more easily kept clean and are therefore more likely to be kept clean. A light-colored paint or finish aids in the even distribution of light and the detection of unclean conditions. Clean walls and ceilings are conducive to clean food-handling operations.

Satisfactory compliance.—This item shall be deemed to have been satisfied if:

(1) Walls and ceilings of all rooms in which food or drink is stored, prepared, or served are clean and in good repair.

(2) Walls and ceilings of all rooms in which food or drink is prepared or stored are painted or finished in light color and refinished as often as necessary in a manner approved by the health officer.

(3) The walls of all kitchens and scullories have a smooth, washable surface up to the level reached by splash or spray, especially splash or spray from the dishwashing vats or machine.

ITEM 3. DOORS AND WINDOWS

When flies are prevalent, all openings into the outer air shall be effectively screened and doors shall be self-closing, unless other effective means are provided to prevent the entrance of flies.

Public-health reason.—Flies may contaminate the food with disease organisms, thus nullifying the effectiveness of all other public-health safeguards.

Satisfactory compliance.—This item shall be deemed to have been satisfied if:

(1) All openings to the outer air are effectively screened with not less than 16-mesh wire or plastic cloth; and all doors are self-closing and screen doors to the outer air open outward; or

(2) Fans of sufficient power to prevent the entrance of flies are in use at all otherwise ineffectively protected openings; or

(3) Flies are absent.

Window and door screens must be tight-fitting and free of holes. This includes the screens for skylights and transoms.

This item must be satisfied during the seasons of the year when flies are prevalent.

ITEM 4. LIGHTING

All rooms in which food or drink is stored or prepared or in which utensils are washed shall be well lighted.

Public-health reason.—Ample light promotes cleanliness.

Satisfactory compliance.—This item shall be deemed to have been satisfied if artificial light sources are provided which furnish 10 foot-candles on all working surfaces in rooms in which food or drink is prepared or in which utensils are washed, as measured by a suitable light meter (which ordinarily may be purchased at reasonable cost or borrowed from the local power and light company), and are in use except when equivalent natural light is present. This intensity of lighting does not apply to the dining room. Storage rooms shall be considered to be sufficiently well lighted if approximately 4 foot-candles are provided at a distance of 30 inches from the floor.

ITEM 5. VENTILATION

All rooms in which food or drink is stored, prepared, or served, or in which utensils are washed, shall be well ventilated.

Public-health reason.—Proper ventilation reduces bacterial concentration in the air, odors, condensation upon interior surfaces which may drop into food or utensils, smudging of walls and ceilings, excessive heat, and the concentration of toxic gases produced as a by-product of combustion or otherwise. Moisture promotes mold development.

Satisfactory compliance.—This item shall be deemed to have been satisfied if all rooms are adequately ventilated so as to be reasonably free of disagreeable odors and condensation. Ventilation equipment supplementary to windows and doors, such as adequate exhaust fans or stove-hoods, shall be provided if necessary. This requirement shall not apply to cold storage rooms.

ITEM 6. TOILET FACILITIES

Every restaurant shall be provided with adequate and conveniently located toilet facilities for its employees conforming with the ordinances of the city of _____. In restaurants hereafter constructed toilet rooms shall not open directly into any room in which food, drink, or utensils are handled or stored. The doors of all toilet rooms shall be self-closing. Toilet rooms shall be kept in a clean condition, in good repair, and well lighted and ventilated. Hand-washing signs shall be posted in each toilet room used by employees. In case privies or earth closets are permitted and used, they shall be separate from the restaurant building, and shall be of a sanitary

type constructed and operated in conformity with the standards of the State board of health.

Public-health reason.—Human excreta is potentially dangerous and must be properly disposed of. The organisms causing typhoid fever, paratyphoid fever, and dysentery may be present in the body discharges of cases or carriers. Sanitary toilet facilities are necessary to protect the food and utensils from fecal contamination carried by flies, other insects, hands, or clothing. When the toilet facilities are of a satisfactory type and are kept clean and in good repair, the opportunities for the spread of contamination by the above means are minimized.

The provision of an intervening room or space between the toilet room and any room in which food, drink, or utensils are handled or stored makes it less likely that toilet-contaminated flies will enter these rooms. It will also minimize the spread of odors.

Where pit privies are used, it is essential that these be of a sanitary type in which the excreta is protected from flies and other agents of transmission, and that they be not rendered ineffective by improper operation.

Satisfactory compliance.—This item shall be deemed to have been satisfied if:

(1) Adequate toilet facilities conveniently located and complying with the city plumbing code are provided for employees.

(2) In restaurants hereafter constructed there is an intervening room or vestibule between any toilet room and any room in which food or drink is prepared, served, or stored or in which utensils are handled or stored. The intervening room or vestibule shall be equipped with tight-fitting, self-closing doors, and shall be of such dimensions as to prevent both doors from being opened simultaneously by the same person.

(3) The toilet-room doors are provided with springs or checks to make them self-closing.

(4) The toilet room and fixtures are kept clean, sanitary, in good repair, and free from flies.

(5) The toilet room is well lighted, and ventilated to the outside air.

(6) Durable, legible signs are posted conspicuously in each toilet room directing employees to wash their hands before returning to work. Such signs may be stencilled on the wall to prevent removal.

A booth open at the top or bottom shall not qualify as a toilet room.

Privies shall be constructed and operated in accordance with the standards of the State board of health.

ITEM 7. WATER SUPPLY

Running water under pressure shall be easily accessible to all rooms in which food is prepared or utensils are washed, and the water supply shall be adequate, and of a safe, sanitary quality.

Public-health reason.—Running water under pressure should be accessible so as to encourage its use in cleaning operations; it should be adequate so that

cleaning and rinsing will be thorough; and it should be of safe, sanitary quality in order to be suitable for drinking and to avoid the contamination of food and utensils. (Compilations of water-borne disease outbreaks reported by State health authorities have been issued annually since 1938 by the U. S. Public Health Service.)

Satisfactory compliance.—This item shall be deemed to have been satisfied if:

(1) Running water under pressure is easily accessible to all rooms in which food is prepared or utensils are washed.

(2) The water supply is ample in quantity to insure proper cleaning of floors, equipment, and utensils.

(3) The water supply conforms with the construction, operation, and sanitation standards of the State board of health.

ITEM 8. LAVATORY FACILITIES

Adequate and convenient hand-washing facilities shall be provided, including hot and cold running water, soap, and approved sanitary towels. The use of a common towel is prohibited. No employee shall resume work after using the toilet room without first washing his hands.

Public-health reason.—The use of washing facilities and sanitary towels is essential to the personal cleanliness of food handlers.

Satisfactory compliance.—This item shall be deemed to have been satisfied if hand-washing facilities, including hot and cold running water, soap, and individual cloth or paper towels, are provided. Washing facilities must be adequate and convenient to the toilet rooms. Utensil-washing vats shall not be accepted as washing facilities for personnel. Hot water must be on hand at all times or within a reasonable time after opening the faucets. Soap and towels should be provided by the management. No employee shall return from a toilet to a room where food, drink, or utensils are handled or stored without first having washed his hands.

ITEM 9. CONSTRUCTION OF UTENSILS AND EQUIPMENT

All multi-use utensils and all show and display cases or windows, counters, shelves, tables, refrigerating equipment, sinks, and other equipment or utensils used in connection with the operation of a restaurant shall be so constructed as to be easily cleaned and shall be kept in good repair. Utensils containing or plated with cadmium or lead shall not be used: Provided, That solder containing lead may be used for jointing.

Public-health reason.—If the utensils and equipment are not so constructed that they can easily be cleaned, and are not kept in good repair, it is unlikely that they will be properly cleaned. Cadmium and lead poisoning outbreaks have been reported from the ingestion of acid food or drink which had been in contact with containers containing or plated with cadmium and lead.

Satisfactory compliance.—This item shall be deemed to have been satisfied if:

(1) All surfaces with which food or drink comes in contact consist of smooth, not readily corrodible material.

(2) All surfaces with which food or drink comes in contact are in good repair, free of breaks, corrosion, open seams, cracks, and chipped places. This requirement precludes the use of any type of equipment so designed as to permit food or drink routinely to come in contact with V-type threaded surfaces. In all cases where a rotating shaft is inserted through a surface with which food or drink comes in contact, the inspector shall assure himself that the joint between the moving and stationary surfaces is close fitting.

(3) All surfaces with which food or drink comes in contact are easily accessible for cleaning, and are self-draining.

(4) All display cases, windows, counters, shelves, tables, refrigeration equipment, stoves, hoods, mixers, meat grinders, and other equipment are so constructed as to be easily cleaned, and are in good repair.

(5) No utensils containing or plated with cadmium or lead are used, provided that solder containing lead may be used for jointing. The following field test, adopted by the Bureau of Food and Drugs of the Department of Health, City of New York, may be used for the detection of cadmium.

ALKALINE FIELD TEST FOR CADMIUM

Reagents.—1. Ammonia-sodium nitrate reagent: To 200 ml. of ammonia water (28%) add 100 grams of sodium nitrate and dilute to 1 liter with distilled water.

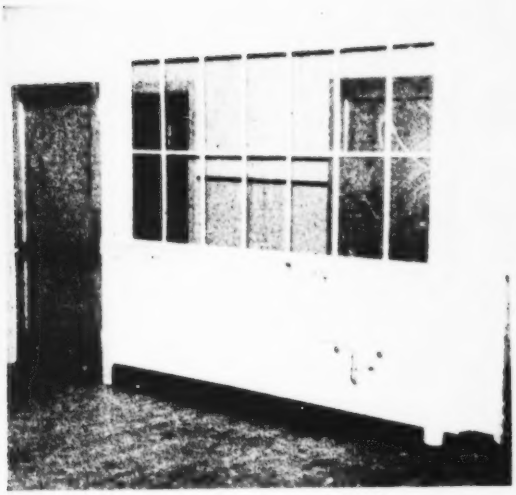
2. Potassium cyanide reagent: Dissolve 100 grams of potassium cyanide and dilute to 1 liter with distilled water.

3. Sodium sulfide reagent: Dissolve 100 grams of sodium sulfide and dilute to 1 liter with distilled water.

Procedure.—From the utensil suspected of containing or being plated with cadmium, scrape off a small quantity of metal. Place a small pinch of the scrapings in a clean test tube, add 3 ml. of the ammonia-sodium nitrate reagent, bring to a boil over a flame, and allow to stand for one or two minutes. Decant the clear supernatant liquid into another test tube and add to it 1 ml. of the potassium cyanide reagent and mix by shaking. Add 1 drop of the sodium sulfide reagent.

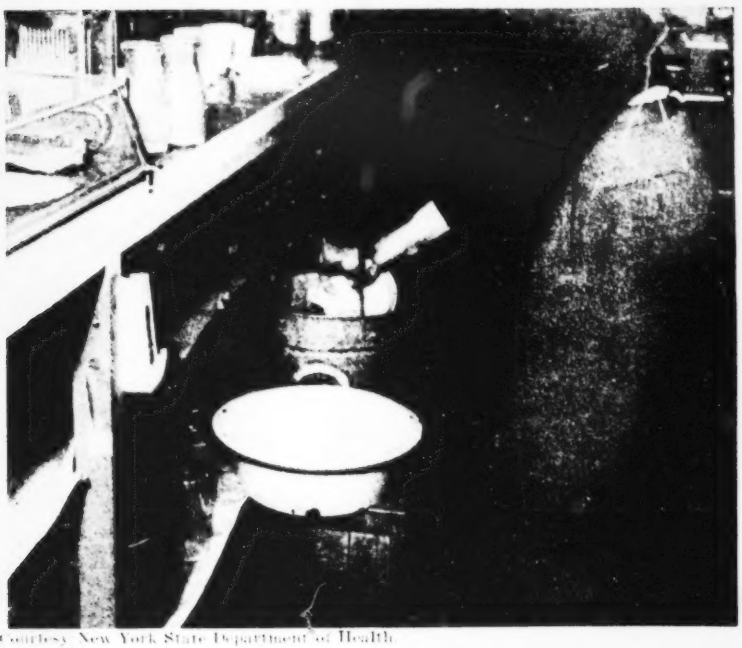
Interpretation.—Cadmium is present if a canary yellow precipitate (cadmium sulfide) results from the addition of the sodium sulfide reagent. Iron, tin, antimony, arsenic, silver, copper, nickel, chromium, zinc, and aluminum do not interfere with the test. If these metals are present, the solution remains colorless, except that a whitish gray precipitate forms when aluminum or zinc is present. However, if cadmium is present in addition to aluminum or zinc, the canary yellow precipitate of cadium sulfide is easily detected. The only metals which do interfere are lead and mercury, but these are rarely if ever used in plating metals.

Caution.—Use great care in the handling and disposition of the highly poisonous potassium cyanide reagent.



Courtesy Kentucky State Department of Health.

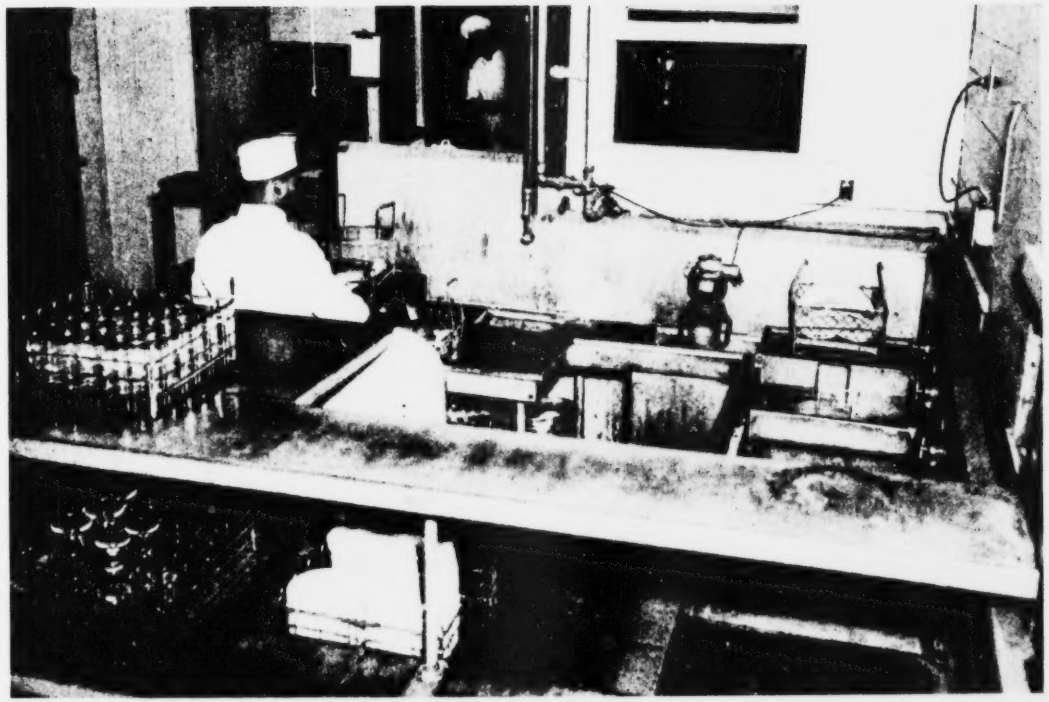
FIGURE 1.—Satisfactory lavatory facilities and drinking fountain, conveniently located between exits from toilet rooms.



Courtesy New York State Department of Health.

FIGURE 2.—Inadequate dishwashing facilities.

Reproduced from best available copy.



Courtesy Texas State Department of Health

FIGURE 3—Satisfactory manual dishwashing facilities

(Note sink and sink for pre-rinse. Compartment sink with drain board at left for washing utensils in hot water and bactericidal treatment with metal racks and glasses inverted. Adequate clean utensils)

ITEM 10. CLEANING AND BACTERICIDAL TREATMENT OF UTENSILS AND EQUIPMENT

All equipment, including display cases or windows, counters, shelves, tables, refrigerators, stores, hoods, and sinks, shall be kept clean and free from dust, dirt, insects, and other contaminating material. All cloths used by waiters, chefs, and other employees shall be clean. Single-service containers shall be used only once.

All multi-use eating and drinking utensils shall be thoroughly cleaned and effectively subjected to an approved bactericidal process after each usage. All multi-use utensils used in the preparation or serving of food and drink shall be thoroughly cleaned and effectively subjected to an approved bactericidal process immediately following the day's operation. Drying cloths, if used, shall be clean and shall be used for no other purpose.

No article, polish, or other substance containing any cyanide preparation or other poisonous material shall be used for the cleaning or polishing of utensils.

Public-health reason.—Food cannot be kept clean and safe if permitted to come in contact with containers, utensils, and equipment which have not been properly cleaned and given bactericidal treatment. The diseases which this item is intended to guard against are those in which the infective agent appears in the saliva or other body discharges.

According to various investigators, eating and drinking utensils may be responsible for the transmission of influenza, tuberculosis, diphtheria, pneumonia, scarlet fever, whooping cough, trench mouth, typhoid fever, diarrhea, dysentery, and the common cold.[6 7 8 9 10 11 12] The organisms of these diseases are transmitted by direct and indirect contact from an infected case or carrier among the patrons or employees. The organisms may be coughed or sneezed on food, dishes, and utensils; they may be left on glasses, cups, spoons, and forks by mouthing; they may reach the dishwater from washers or handlers or indirectly from dishes infected by the users; or they may reach cleaned dishes exposed to contamination by handling or droplet infection. It has been shown that disease organisms can be transferred from infected persons to eating and drinking

---

[6] Manual for Sanitary Inspectors, Canadian Public Health Association. Toronto, Canada (1940).

[7] Rosenau, M. J. Preventive Medicine and Hygiene. Appleton-Century Co., Inc., N. Y., Sixth Edition, 1935. Chapter I, pp. 1–135, and Section V, p. 611.

[8] Ravenel, Mazyck P., and Smith, K. W. An Unusual Outbreak of Typhoid Fever. Journal of the American Medical Association, **52**, 1635–36 (May 22, 1909).

[9] Thompson, T. O. Control of Saliva-Borne Infections: An Epidemic of Influenza. Journal of the Royal Army Medical Corps, **57**, 81–91 (Aug. 1931).

[10] Cumming, J. G. and Yonzue, N. E. Eating Utensil Sanitation. American Journal of Public Health, **26**, 237–44 (Mar. 1936). (Includes references to Cumming's early work.)

[11] Nichols, Henry J. Bacteriologic Data on the Epidemiology of Respiratory Diseases in the Army. Journal of Laboratory and Clinical Medicine, **5**, 502–11 (May 1920).

[12] MacDonald, R. St. J. and Freeborn, Grace M. Sterilization of Eating Utensils. Canadian Public Health Journal, **24**, 83–93 (Feb. 1933).

utensils [13 14] and that pathogens may survive poor dishwashing methods.[15] Pathogens have been found on restaurant tableware which had not been effectively washed and "sterilized." [12 16] Although some investigators believe that eating and drinking utensils constitute a major avenue for the spread of the respiratory diseases,[10 12 17] it has not been possible to determine the actual extent to which these diseases are so spread.[11 18 19 20]

Satisfactory compliance.—This item shall be deemed to have been satisfied if:

(1) All equipment, including display cases and windows, counters, shelves, tables, meat-blocks, refrigerators, stoves, and hoods, are kept clean and free from dust, dirt, insects, and other contaminating material.

(2) All tablecloths, napkins, and cloths used by waiters, chefs, and other employees are clean.

(3) Single-service articles, such as paper cups, plates, straws, and milk bottle caps, are used once only.

(4) All multi-service eating and drinking utensils are thoroughly cleaned after each usage, and all multi-use utensils used in the preparation or serving of food and drink are thoroughly cleaned immediately following the day's operation, in such manner as to be clean to the sight and touch. A suitable detergent shall be used.

The cleaning may be accomplished by the use of warm water (110° F. to 120° F.) containing an adequate amount of an effective soap or detergent to remove grease and solids. The soapy wash water should be changed at sufficiently frequent intervals to keep it reasonably clean. Careful scraping or prerinsing of dishes to remove the gross food particles before washing will make it possible to keep the wash water clean for a longer time between changes and to maintain a sufficient concentration of the detergent. In machine washing, dishes should be stacked in the racks or trays so as to avoid overcrowding and so as to permit the wash and rinse waters to reach all surfaces of each article.

(5) After cleaning, all such utensils are effectively subjected to one or more of the following or other equivalent approved bactericidal processes:

By *approved bactericidal process* is meant the application of any method or substance for the destruction of pathogens and all other organisms so far as

---

[13] Brown, L., Petroff, S. A., and Pasquera, G. Etiological Studies in Tuberculosis. American Review of Tuberculosis, **3**, 621–30 (Dec. 1919).

[14] Floyd, C. and Frothingham, L. Table Utensils as a Source of Tuberculous Infection. American Review of Tuberculosis, **6**, 51–62 (Mar. 1922).

[15] Ward, W. E., and Dack, G. M., Bacteriological Tests on Mechanical Dishwashers for Home Use. American Journal of Public Health, **29**, 1114–18 (Oct. 1939).

[16] Saelhof, C. C., and Heinekamp, W. J. R. Recovery of Streptococcus Hemolyticus from Restaurant Tableware. American Journal of Public Health, **10**, 704–07 (Sept. 1920).

[17] Cumming, J. G., Spruit, C. B., and Reuter, F. A. Saliva-Borne Infections: Their Transmission Through Eating Utensils. Modern Medicine, **2**, 502–07 (July 1920).

[18] Stallybrass, C. O. Changing Views as to the Spread of Infection. Journal of the Royal Institute of Public Health and Hygiene, **1**, 769–80 (Oct. 1938).

[19] Dudley, S. F. Some Principles of the Dissemination of Microbic Disease. Journal of the Royal Naval Medical Service, **20**, 9–24 (Jan. 1934).

[20] Shrader, J. H. Food Control. John Wiley and Sons, Inc., N. Y., 1939, p. 60.

practicable, and which, in the opinion of the health officer, is effective and does not adversely affect the equipment or the food or drink or the health of the consumer.

(a) Immersion for at least 2 minutes in clean, *hot water* at a temperature of at least 170° F. or for ½ minute in boiling water. Unless actually boiling water is used an approved thermometer shall be available convenient to the vat. The pouring of scalding water over washed utensils shall not be accepted as satisfactory compliance.

It is recommended that, wherever practicable, bactericidal treatment should be obtained through the use of hot water in the manner above described. For this method of bactericidal treatment two adjacent deep sinks should be provided and fitted with a porcelain, metal, or other impervious drainboard. Metals like zinc which mark the chinaware should be avoided for surfacing of drainboards or table tops on which dishes are stored. If difficulty is experienced in obtaining clean-looking glasses, it is recommended that greater manual effort be applied, or that a more efficient detergent be tried, or that the rinse water be changed more frequently, or that a three-compartment vat be used. After washing in the first sink, the glasses, dishes, etc., should be placed in metal baskets and immersed in the hot water in the second sink for the required period of time. Baskets may be lined with wooden strips to prevent marking of the chinaware. Upon removal from the hot water they should remain in the baskets until dry and then stored in such manner as not to become contaminated before again being used.

Where hot water is used for bactericidal treatment, there shall be provided a hot water heater (preferably controlled by a thermostat) capable of maintaining a water temperature of at least 170° F. in the vat at all times during business hours, and water at such temperature shall be available at all times while utensils are being washed and given bactericidal treatment. The heating device may be integral with the immersion vat. It is considered that even in the case of roadside stands hot water may be obtained through the use of gasoline or kerosene stoves, which may, if the wash and rinse vats are correctly constructed, be placed directly thereunder. Provision should be made for compensating for heat loss to the utensils, especially when large numbers are submerged at any time.

Care shall be taken in the bactericidal treatment of containers by immersion in hot water or chlorine rinse to prevent the trapping of air in the container, thus preventing contact with the entire surface of the container. This may be accomplished by placing all glasses, cups, plates, and saucers in a venting position so that air will not be trapped.

(b) Immersion for at least 2 minutes in a lukewarm *chlorine* bath containing at least 50 ppm of available chlorine if hypochlorites are used, or a concentration of equal bactericidal strength if chloramines are used. The bath should be made up at a strength of 100 ppm or more of hypochlorites and shall not be used after its strength has been reduced to 50 ppm. Bactericidal treatment with chlorine is ineffective

if the utensils have not been thoroughly cleaned. Where chlorine is relied upon for bactericidal treatment, the bactericidal treatment requirement of this item shall therefore be considered as violated if the utensils so treated are not clean.

Solutions made from compounds containing chloramine or chloramine-T have a slower bactericidal action than hypochlorites containing equal concentrations of available chlorine. The former must therefore be made up to a sufficiently greater strength to produce a bactericidal effect within the required exposure period equivalent to that of the above hypochlorite concentration. The chloramine and chloramine-T concentration necessary will vary with the different compounds.

Chlorine solutions once used shall not be reused for bactericidal treatment on any succeeding day, but may be reused for other purposes.

Where chlorine treatment is used a three compartment vat shall be required, the first compartment to be used for washing, the second for plain rinsing, and the third for chlorine immersion; provided that for existing installations the second or rinsing compartment may be omitted if a satisfactory rinsing or spraying device is substituted. This will prevent the excessive consumption of chlorine by organic matter and washing compound carried over from the washing compartment. The first basket of utensils will remain in the chlorine bath for at least 2 minutes while the second basket is in the plain rinse and the third basket is being washed. Upon removal from the chlorine bath the utensils may be rinsed in clean running water, if desired, and allowed to dry either in the basket or inverted on a drain shelf or tray.

Silver and silver-plated tableware should not be treated with chlorine as silver chlorides are formed which blacken the silver.

The health officer shall satisfy himself by frequent test that the chlorine bath in actual use is of the required strength. The following test suitable for this purpose has been devised by the Sanitation Section of the United States Public Health Service:

The *test for chlorine strength* makes use of the fact that when the proper amount of o'tolidin is added to a chlorine solution containing 20 parts per million or more a precipitate is formed, except that in the case of certain chloramines the solution becomes cloudy at chlorine concentrations having a 2-minute bactericidal strength equivalent to at least the bactericidal strength of 20 parts per million of available chlorine in the form of hypochlorite.

The testing outfit consists of two test tubes $\frac{5}{8}$ by 4 inches, one of which contains o'tolidin. (For composition of o'tolidin solution see *Standard Methods for the Examination of Water and Sewage* published by the American Public Health Association.) The other is fitted with a medicine dropper and is used for testing the chlorine solution. It is etched at the 2 ml. and 5 ml. levels so as to make possible the dilution of the solution to be tested to two-fifths of its original strength, thus diluting an original solution of 50 parts per million or more to one of 20 parts per million or more, which, as above stated, is the critical point for the

formation of the precipitate when hypochlorites are tested. Before any tests are made with the apparatus the medicine dropper should be tested to determine whether it delivers drops of the proper size. To do this, simply count the number or drops required to fill to the first mark of the testing tube. If the number required lies between 30 and 50 the dropper is satisfactory. If not, discard it and secure one of the proper size.

The test procedure is as follows: Rinse the testing tube and its dropper thoroughly with clean water. Fill the testing tube to the lower mark with the chlorine solution to be tested, using the dropper for this purpose. Avoid including floating particles. Fill to the second mark with clean water, using the dropper for this purpose. Add 1 drop of o'tolidin. Hold the upper part of the testing tube firmly with one hand and tap the lower end of it sharply 50 times with one or two fingers of the other hand. If, in the case of hypochlorites, reddish or brownish particles separate out within 5 minutes, the solution tested contains at least 50 parts per million of available chlorine. If, in the case of certain chloramines, the solution becomes cloudy within 5 minutes, the solution tested has a bactericidal strength for a 2 minute exposure equivalent to at least the bactericidal strength of 50 parts per million of available chlorine in the form of hypochlorite.

In order to determine whether a certain commercial preparation is strong enough for bactericidal use when mixed as directed on the label, the inspector should mix a portion as directed, then dilute half and half, and test for 50 parts per million by means of the above-described test. If a precipitate appears, the directions upon the label result in a solution containing at least 100 parts per million in the form of hypochlorites or the bactericidal equivalent thereof and may be approved. Otherwise, such larger quantity of the stock solution should be used as will give a satisfactory test.

Other bactericides.—The health officer should not permit restaurants to use any other form of bactericide until he has satisfied himself by his own or other official tests that it is satisfactory. It is essential that the concentration of the bactericide be measurable by a simple and accurate field test, so that it can be determined whether adequate quantities are being used.

If the local or State health authority is in doubt about the efficiency of any proprietary bactericide, he may consult the Public Health Service.

(c) Exposure in a *steam cabinet* equipped with an indicating thermometer located in the coldest zone to at least 170° F. for at least 15 minutes, or to at least 200° F. for at least 5 minutes. For a discussion of steam cabinets see item 14r of the U. S. Public Health Service Milk Code. Steam cabinets should be provided with a valve to permit the discharge of cold air when steam is admitted.

(d) Exposure in a properly designed oven or *hot-air cabinet* equipped with an indicating thermometer located in the coldest zone to hot air at a temperature of at least 180° F. for at least 20 minutes.[21]

Equipment that is too large to immerse may be treated (1) with live steam from a hose, in the case of equipment in which steam can be confined, (2) by boiling water rinse, or (3) by spraying or swabbing with chlorine solution of approved strength.

---

[21] See Studies of the Bacterial Treatment of Milk Cans in Hot Air Cabinets. Public Health Reports, Mar. 4, 1938 (Reprint No. 1912).

Health officers should check with a thermometer the actual temperatures used in the methods which employ heat as the bactericidal agent. For all bactericidal processes the actual period of exposure to the temperature or the chlorine rinse should be checked to determine compliance. To promote adequate exposure even during rush hours, restaurants should be encouraged to provide a sufficient supply of glasses, dishes, cups, and tableware, particularly where the process employed requires a long exposure period.

The following specifications for inspectors' milk temperature thermometers are designed to make this a general-purpose thermometer suitable for determining not only refrigeration temperatures but also bactericidal treatment temperatures at dairies and restaurants.

INSPECTOR'S GENERAL PURPOSE THERMOMETERS

Type.—Pocket type, mercury actuated.

Magnification of mercury column.—To apparent width of not less than one-sixteenth inch.

Scale range.—30° to 212° F. with extension either side permissive.

Temperature represented by smallest scale division.—2° F.

Number of degrees per inch of scale.—Not more than 52.

Accuracy.—Within 2° F., plus or minus.

Case.—Metal, provided with suspension ring and fountain-pen clip.

Bulb.—Corning normal, or equally suitable thermometric glass.

Drying cloths, if used, shall be clean and shall be used for no other purpose. It is recommended that wherever possible utensils be permitted to drain dry without the use of drying cloths.

In *dishwashing machines* the use of higher wash water temperatures, higher detergent concentrations, and the more efficient mechanical removal of soil, make it possible to employ a shorter exposure period for the final treatment (the hot water or chlorine rinse, or, in the case of some glasswashers, the exposure to a jet of steam).

Additional research on dishwashing machines will be required definitely to establish the necessary wash and rinse water temperatures, the minimum allowable washing and rinsing times (and the time of exposure to a jet of steam in the case of some glasswashing machines), the optimum concentrations of different detergents, and similar factors. However, it seems to be fairly well established that the wash water temperature should be approximately 140° F. (but not higher, because food particles would then be "cooked" onto the utensils), and in no case lower than 120° F. (because then fats would not be emulsified); and that the rinse water temperature should be at least 170° F.

Dishwashing machines must be kept clean. The pumps and the wash and rinse sprays or jets, if any, should be so designed that a forceful stream of water will reach all of the utensils when they are properly racked. Periodic inspection and cleaning of wash and rinse sprays are essential to continued satisfactory operation, and these parts of the machines should, therefore, be readily accessible for inspection and cleaning. The wash tank water should be changed during operation as often as is found necessary to keep it reasonably clean. An effective

concentration of detergent should be maintained at all times. The inspector should urge that dishwashing machines be provided with: (1) properly operating automatic detergent dispensers; (2) thermostatic control of the temperature of the wash water as well as that of the rinse water; and (3) thermometers in both the wash and rinse water lines and in such a location as to be readily visible. Adequate hot water heating and storage facilities are essential. These specifications are not intended to be mandatory, but only to serve as a guide to the inspector and the restaurateur.

When dishwashing machines are used, the bactericidal treatment standards given above in 5 (a) through 5 (d) will not apply, and the health officer shall resort to other methods, such as the following, for determining the actual results obtained.

Where bacteriological laboratory facilities are available, the following swab test procedure for determining the number of bacteria on utensil surfaces is recommended for the bacteriological examination of utensils which have been cleansed and disinfected by any of the above methods. This is the Standard Method for the Bacteriological Examination of Food Utensils proposed by the Subcommittee on Food Utensil Sanitation of the American Public Health Association in June, 1943. Health officers should be guided by the A. P. H. A. Standards as they may be amended from time to time.

BACTERIOLOGICAL EXAMINATION OF UTENSILS

Apparatus and materials.—Sterile Petri dishes, sterile 1 ml. pipettes, standard tryptone glucose extract agar (without milk), thin flexible sheet metal frames with openings 4 sq. in. in area, alcohol burner, automatic shaking machine, sterile cotton swabs on stiff, not readily corrodible wire holders (such as $\frac{1}{16}$" diameter tempered wire), and sterile swab containers. Satisfactory containers consist of screw-cap swab bottle 23 by 70 mm. or 15 x 100 mm. bacteriological test tubes with cork or rubber stoppers. Cotton plugs are not satisfactory. The swab holder should be attached to the cap or stopper; the use of separate dry swabs in glassine envelopes is not recommended. A small, firmly twisted cotton swab shall be used. Wooden holders may be used if wire is not obtainable. (The use of wooden holders results in the recovery of a somewhat smaller proportion of the organisms on utensils than is recovered with stiff-wire holders. See Tech. Bul. No. 200, N. Y. State Agr. Exp. Sta., Geneva, N. Y.)

Buffered distilled water.—The purpose is to secure a solution that is non-toxic to bacteria. Prepare the phosphate buffer solution as directed in detail on page 126 of *Standard Methods for the Examination of Dairy Products*, eighth (1941) edition. Briefly, this is done by dissolving 34 gm. of potassium di-hydrogen phosphate in 500 ml. of distilled water, adding about 175 ml. of a normal sodium hydroxide solution, diluting to 1 liter with distilled water, adjusting this solution to pH 7.2, and diluting 1 ml. of this stock solution to 800 ml. with boiled and cooled distilled water. If the utensils to be swabbed are likely to contain residual chlorine, add 4 ml. of a 0.1 N sodium thiosulfate solution to the 1 ml. of stock solution before diluting it to 800 ml.

Distribute the diluted solution in the swab containers in amounts that will provide, after autoclaving for 30 minutes, exactly 1 ml. for each utensil to be examined per swab; e. g., 4 ml. for 4 utensils, 5 ml. for 5 utensils, etc. The con-

tainers should be autoclaved with the swabs in place and the caps slightly loosened.

Collecting samples.—Utensils to be examined shall include at least glasses, cups, and spoons, if used, and at least 4 of each shall be selected at random from the shelves upon which clean utensils are stored. If a direct check of the dishwashing methods is desired, utensils should be selected from those recently washed. Care shall be taken to prevent contamination by handling.

Use 1 swab for each group of 4 or more similar utensils. Take the swab from a freshly-opened container of dilution water, and squeeze it against the side of the container so as to remove excess water, leaving the swab moist but not wet. Rub the swab slowly and firmly three times over the significant surfaces of 4 or more similar utensils. After swabbing each utensil, return the swab to the container of dilution water, rotate the swab in the dilution water, and press out the excess water against the side of the container before swabbing the next of the 4 or more utensils in the group.

The significant surfaces of utensils consist of the upper one-half inch of the inner and outer rims of cups and glasses and the entire inner and outer surfaces of the bowls of spoons. If it is desired to examine forks and surfaces of dishes, etc., the area to be swabbed should include the entire inner and outer surfaces of the tines of forks, and the inner surfaces of plates and bowls over an area of 4 square inches that would come in contact with the food. The area to be swabbed on plates and bowls may be delineated by using the flexible metal frame, which must be sterilized immediately before use. Flaming or burning off with alcohol constitutes satisfactory sterilization for this purpose.

After completing the swabbing of all utensils in the group of 4 or more replace the swab in the container of dilution water. Use a new swab container for the next group of utensils. Keep the containers iced while in transit to the laboratory, and plate the dilution water samples as soon as possible, preferably within 4 hours of swabbing.

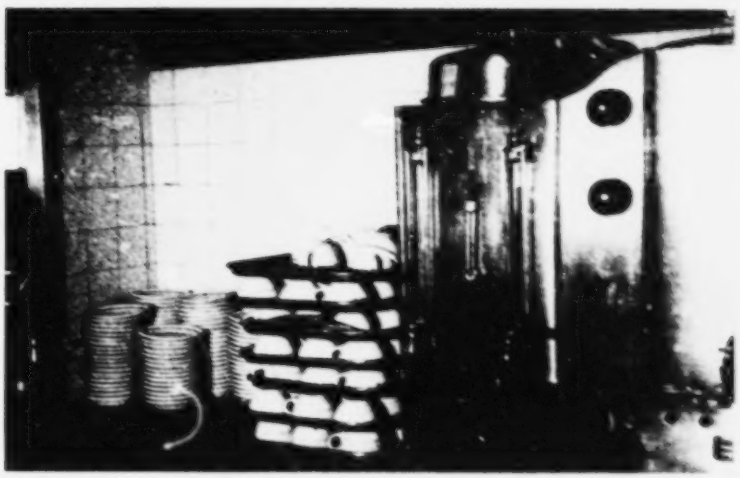
Laboratory procedure.—Shake the swab containers for 2 minutes in an automatic shaking machine, using a lateral motion in order to wash adherent material from the swab into the dilution water. If a shaking machine is not available, agitate the containers vigorously by striking them against the palm of the hand rapidly for 2 minutes. Remove the swab, pressing it against the wall of the container to expel as much moisture as possible. Transfer 1 ml. of the dilution water to a sterile Petri dish. Add approximately 10 ml. of melted standard tryptone glucose extract agar (without milk), mix, incubate for 48 hours at 37° C., and count as in making a Standard Plate Count. Slight increases in temperature above 37° C. materially lessen the number of visible colonies that will develop. Report the count as the average plate count of organisms removed per utensil surface examined. For example, if 4 glasses are swabbed, if 1 ml. of the 4 ml. of dilution water is plated, and if 56 colonies are counted after incubation, record the average plate count per glass surface as 56.

Interpretation.—The average plate count per utensil surface examined should not exceed 100. Higher counts are presumptive evidence of inadequate cleansing or bactericidal treatment or recontamination by handling or during storage.

(6) No article, polish, or other substance containing any cyanide preparation or other poisonous material is used for the cleansing or polishing of utensils. The following field test, described by Korff and Kaplan in the October 1942 issue of the American Journal of Public Health, may be used for the detection of cyanide in metal polishes.

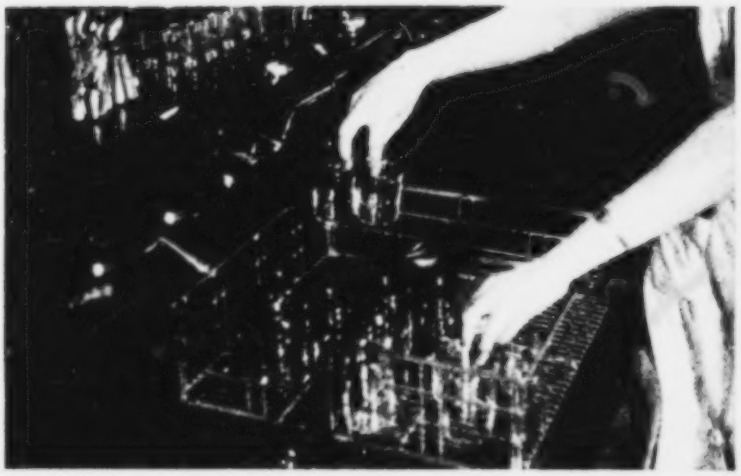
Courtesy New York State Department of Health

FIGURE 4.—Counting bacteria removed from utensils by cotton swabs.
(Proper dishwashing produces utensils with low bacteria counts.)



Courtesy Utah State Board of Health

FIGURE 5.—Satisfactory storage of cups.
(When cups are inverted it is natural to grasp them by the handles; when not inverted it is most convenient to grasp the rims.)



Courtesy Utah State Board of Health

FIGURE 6.—Improper handling of clean glasses.

Courtesy Utah State Board of Health

FIGURE 7.—Improper handling of clean glass. (Note rim of glass in contact with exterior of milk bottle.)

FIELD TEST FOR CYANIDE IN METAL POLISHES

Materials.—Prepare sodium picrate test papers by dipping strips of paper into a 1 percent solution of picric acid, drying, then dipping into a 10 percent solution of sodium carbonate and drying. Preserve papers in a stoppered bottle. See *Official and Tentative Methods of Analysis of the Association of Official Agricultural Chemists*, 5th edition, 1940, p. 396.

Procedure.—Moisten a test paper with water and suspend it in the container of the suspected polish, taking care that the paper does not come in contact with the material.

Interpretation.—The paper turns orange and then brick red in 5 to 10 minutes if the concentration of cyanide (as KCN) exceeds 0.5 percent. Although this reaction is not wholly specific for cyanide the test serves as a rapid screening test in the field. Positive results should be confirmed in the laboratory.

ITEM 11. STORAGE AND HANDLING OF UTENSILS AND EQUIPMENT

After bactericidal treatment utensils shall be stored in a clean, dry place protected from flies, dust, and other contamination, and shall be handled in such a manner as to prevent contamination as far as practicable. Single-service utensils shall be purchased only in sanitary containers, shall be stored therein in a clean, dry place until used, and shall be handled in a sanitary manner.

Public-health reason.—If utensils and equipment are not protected from contamination the value of bactericidal treatment may be nullified.

Satisfactory compliance.—This item shall be deemed to have been satisfied if:

(1) All containers and utensils are stored at a sufficient height above the floor in a clean, dry place protected from flies, splash, dust, overhead leakage and condensation, and other contamination. Wherever practicable containers and utensils shall be covered or inverted.

(2) Drain racks, trays, and shelves are made of not readily corrodible material, and are kept clean.

(3) Containers and utensils are not handled by the surfaces which come in contact with food or drink. Fingers should not touch the inside surfaces of glasses, cups, dishes, etc., nor the bowls of spoons, the tines of forks, or the blades of knives. Any equipment touched by the inspector shall be again subjected to bactericidal treatment before being used.

(4) Paper cups, plates, straws, spoons, forks, and other single-service containers and utensils are purchased in sanitary cartons and stored therein in a clean, dry place until used, and after removal from the cartons these articles are handled in a sanitary manner. Laundered cloths and napkins shall be stored in a clean place until used.

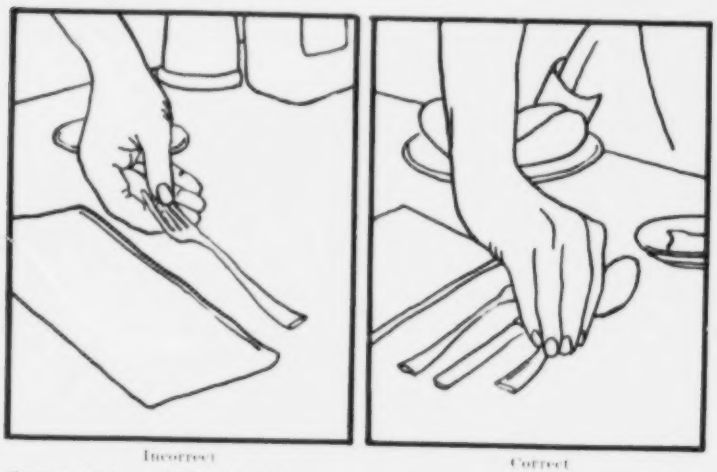
(5) Spoons, spatulas, dippers, scoops, etc., used for dispensing frozen desserts are, when not in use, kept either in water maintained at 170° F. or in running water.

ITEM 12. DISPOSAL OF WASTES

All wastes shall be properly disposed of, and all garbage and trash shall be kept in suitable receptacles, in such manner as not to become a nuisance.

Public-health reason.—All garbage, refuse, and liquid wastes resulting from the normal operation of a food or drink establishment should be properly disposed of so as not to become a nuisance or a public-health menace.

Satisfactory compliance.—This item shall be deemed to have been satisfied if:



Incorrect Correct

Courtesy Colorado Medical School.

FIGURE 8.—Methods of handling silverware.

(1) All liquid wastes resulting from the cleaning and rinsing of utensils and floors, from flush toilets, and from lavatories are disposed of in a public sewer or, in the absence of a public sewer, by a method approved by the State board of health. Grease traps are recommended where much grease is discharged.

(2) All plumbing complies with the city plumbing ordinances and is so designed and installed as to prevent contamination of the water supply through interconnections and back-siphonage from fixtures, including dishwashing machines and sinks.

(3) All garbage is kept in tight, non-absorbent, and easily washable receptables which are covered with close-fitting lids while pending removal.

(4) All garbage, trash, and other waste material are removed from the premises as frequently as may be necessary to prevent nuisance and unsightliness, and are disposed of in a manner approved by the health officer.

(5) All garbage receptacles are washed when emptied, and treated with a disinfectant if necessary, to prevent nuisance.

ITEM 13. REFRIGERATION

All readily perishable food and drink shall be kept at or below 50° F. except when being prepared or served. Waste water from refrigeration equipment shall be properly disposed of.

Public-health reason.—Usually the bacteria in food are harmless, and if this were always true there would be no reason to refrigerate food except to prevent spoilage. There is, however, no way to be sure that pathogenic bacteria have not entered the food (even though observance of the other items of this ordinance will much reduce this likelihood). The likelihood of contracting disease may be increased when the food contains large numbers of disease producing organisms or their toxins. For this reason perishable foods should be kept cold so that any small number of disease producing bacteria which *may* have entered will not be permitted to multiply. It should be recalled that bacteria are microscopic plants and that most plants do not grow in cold weather.

Satisfactory compliance.—This item shall be deemed to have been satisfied if:

(1) All readily perishable food or drink is kept at or below 50° F. except when being prepared or served. This shall include all custard-filled and cream-filled pastries, milk and milk products, egg products, meat, fish, shellfish, gravy, poultry stuffing, and sauces, dressings, and salads containing meat, fish, eggs, or milk or milk products.

(2) All ice used is from a source approved by the health officer and is stored and handled in such manner as to prevent contamination. Water used to wash ice shall comply with the safety standards of item 7.

(3) To prevent contamination of the refrigerator contents by possible sewage back-flow, all waste water from refrigeration equipment drains into an open sink or drain, properly trapped and sewer connected; provided that where sewer connections are not available clean adequate water-tight drip pans may be used, or the drainage is disposed of in an approved manner.

ITEM 14. WHOLESOMENESS OF FOOD AND DRINK

All food and drink shall be clean, wholesome, free from spoilage, and so prepared as to be safe for human consumption. All milk, fluid milk products, ice cream, and other frozen desserts served shall be from approved sources. Milk and fluid milk products shall be served in the individual original containers in which they were received from the distributor or from a bulk container equipped with an approved dispensing device: Provided, That this requirement shall not apply to cream, which may be served from the original bottle or from a dispenser approved for such service. All oysters, clams, and mussels shall be

from approved sources, and if shucked shall be kept until used in the containers in which they were placed at the shucking plant.

Public-health reason.—Food may be harmful or distasteful to the consumer unless it is clean, wholesome, free from spoilage, and so prepared as to be safe for human consumption.

That foods of many kinds have been responsible for numerous outbreaks of disease is shown by the tables below. Many food-borne outbreaks can be prevented by the observation of the principles of sanitation. The various items of this ordinance are designed to require the practical application of these principles in the restaurant operations. Item 14 also requires that certain foods which are ordinarily obtained from other sources by the restaurant are clean and safe. It is therefore required that milk and fluid milk products, ice cream and other frozen desserts, and oysters, clams, and mussels shall be obtained only from approved sources.[2]

The portion of this item dealing with the method of serving milk and fluid milk products is designed to prevent contamination of the milk in handling or serving. Such contamination is frequently observed in the dipping of milk from a bulk container into the glass in which it is served to the customer, the glass frequently overflowing and the milk coming in contact with the fingers and then dripping back into the bulk container from which it was dipped. Even if milk is poured into glasses from bottles in the kitchen there is more opportunity for carelessness and consequent contamination than if it is served in the individual original container, because the transferring is done out of sight of the customer. The serving of milk in the original container has been found practical, and many establishments have reported increased sales of milk because of the reaction of the consumer to the improved service sanitation, and to the fact that he is assured of receiving all of the cream in the original container. However, there are rapidly being developed sanitary bulk dispensers which may result in reducing the cost of milk distribution. For this reason, this item permits the serving of milk and fluid milk products from approved sanitary bulk dispensers.

The requirement that shucked shellfish be kept in the original container until used is intended to prevent handling which might result in contamination between the shucking plant and the restaurant.

During recent years, more disease outbreaks have been reported as traced to cream-filled and custard-filled pastries than to any other item of food. Accordingly a special discussion has been included under (2) of *Satisfactory compliance*.

Since 1922 the Public Health Service has issued annually compilations of milk-borne disease outbreaks reported by State health authorities, and since 1938 it has issued compilations of disease outbreaks similarly reported as having been traced to foods other than milk and milk products. The following tables have been prepared from these reports for 1940 and 1941:

---

[2] For recommended sanitation standards covering these products, see the following publications:

Milk Ordinance and Code Recommended by the U. S. Public Health Service, Public Health Bulletin No. 220.

Frozen Desserts Ordinance and Code Recommended by the U. S. Public Health Service.

U. S. Public Health Service Minimum Requirements for Endorsement of State Shellfish Control Measures and Certifications for Shippers in Interstate Commerce.

Disease outbreaks conveyed through foods other than milk and milk products in the United States in 1940 and 1941 as reported by State health authorities, by kind of food

Kind of food	1940		1941	
	Outbreaks	Cases	Outbreaks	Cases
Fish	9	274	1	11
Fowl, fowl and dressing, fowl and gravy	12	968	20	826
Fruits and vegetables	5	53	4	135
Ham, pretreated [1]	7	45	3	17
Ham, smoked	21	392	23	529
Home-canned fruits, juices and vegetables	5	17	5	17
Meat and meat products other than pork and pork products	19	755	11	345
Pies and pastries, cream-filled	37	400	47	841
Pies and pastries other than cream-filled	5	65	12	204
Pork and pork products other than smoked and pretreated ham [1]	22	134	15	217
Puddings	4	93	3	106
Salads	4	213	15	453
Sandwiches	10	243	10	403
Sauces, salad dressings, and gravy	6	378	3	55
Shellfish	5	118	10	301
Combined foods	7	620	9	451
Miscellaneous	6	20	8	359
Undetermined	34	800	24	800
Total	218	5,588	223	6,070

[1] "Pretreated" denotes special processing to make the ham more tender, as by heat or enzyme treatment

Foods which caused a total of 30 or more outbreaks during the two-year period, in the decreasing order of their importance with respect to the number of outbreaks conveyed by each food, are: (1) cream-filled pies and pastries; (2) smoked ham; (3) pork and pork products other than smoked and pretreated ham; (4) fowl, fowl and dressing, fowl and gravy; and (5) meat and meat products other than pork and pork products.

The diseases involved in the outbreaks reported for the two-year period, in the decreasing order of their importance with respect to the number of outbreaks of each disease are: food poisoning, gastroenteritis, trichinosis, typhoid fever, botulism, dysentery, chemical food poisoning, paratyphoid fever, and scarlet fever.

A total of 83 deaths was reported to have resulted from these outbreaks during the 2-year period. Of these 83 deaths, 20 were due to botulism (19 to home-canned foods and 1 to commercially-canned food), 20 were due to typhoid fever, 14 to trichinosis, 14 to chemical food poisoning, 12 to food poisoning and gastroenteritis, and 3 to dysentery.

Disease outbreaks conveyed through milk and milk products in the United States in 1940 and 1941 as reported by State health authorities, by kind of product [1]

Kind of product	1940		1941	
	Outbreaks	Cases	Outbreaks	Cases
Buttermilk, raw	2	18	0	0
Canned milk	0	0	1	4
Cheese curds, raw	0	0	1	19
Cheese, undesignated	0	0	1	(?)
Cottage cheese, undesignated	1	6	0	0
Frozen desserts, pasteurized	0	0	1	3
Ice cream, raw	2	84	2	16
Ice cream, pasteurized	1	229	3	59
Ice cream, undesignated	2	8	1	6
Sherbet, undesignated	0	0	1	5
Sweet milk, raw	32	1, 277	18	531
Sweet milk, pasteurized	1	47	6	229
Sweet milk, undesignated	1	5	0	0
Sweet milk and sweet cream, raw	1	4	1	77
Sweet milk or chocolate milk	0	0	1	100
Total	43	1, 678	37	1, 049

[1] Six of these outbreaks were reported as *possibly* due to milk and milk products.

The majority of the outbreaks and cases were due to raw sweet milk. A total of 14 deaths were reported to have resulted from these outbreaks: 10 in 1940 and 4 in 1941. All of the 10 deaths in 1940, and 3 of the 4 deaths in 1941 were due to typhoid fever conveyed through raw sweet milk. The other death in 1941 was also due to typhoid fever; raw cheese curds was reported as the vehicle.

The above data on the relation of milk and milk products and other foods to the transmission of disease show the importance of adequate preventive measures. It is recognized that the above reports are far from complete and hence do not accurately show the importance of foods as vehicles of infection.

Satisfactory compliance.—This item shall be deemed to have been satisfied if:

(1) All food and drink are clean, wholesome, free from spoilage, and so prepared as to be safe for human consumption. The term "food and drink" shall include condiments, dressings, and sauces.

Pork and pork products.—Attention is called to the necessity for thoroughly cooking pork or pork products which have not otherwise been treated to destroy trichinae, the organisms which cause trichinosis in man. In the United States, in establishments operating under Federal meat inspection, pork products of any kind that are customarily eaten without cooking by the consumer are specially processed to destroy the trichinae which may be present either by heating, special refrigerating, or special curing. The accepted heat treatment consists of heating all parts of the pork muscle tissue to a temperature of at least 137° F. The accepted refrigeration treatment consists of subjecting all parts of the product continuously to a temperature not higher than 5° F. for 20 or 30 days depending

upon the thickness of the meat or product, or minus 10° F. for 10 or 20 days, or minus 20° F. for 6 or 12 days. The accepted curing treatments and further details regarding the heating and refrigerating methods and administrative control procedures may be found in publications issued by the Bureau of Animal Industry, U. S. Department of Agriculture. Of the above methods, only cooking is applicable for use by individual restaurants.

Restaurants serving pork or pork products for consumption raw should be careful to use only those which are produced under Federal meat inspection or equally reliable State or local supervision and are specially processed to destroy trichinae. If such products are unobtainable, no uncooked pork or pork products should be served.

All pork and pork products other than those which have been specially treated as described above should be thoroughly cooked. Thorough cooking may be relied upon to kill trichinae, but it is essential that cooking be thorough so that all parts of the meat will be heated to at least 137° F. As heat penetrates meat slowly, it is necessary to cook large pieces for a longer time than small ones in order to raise the center to the required temperature. Pork is not adequately cooked if any portion is red. According to the U. S. Department of Agriculture, "a good test for 'doneness' of chops and also of loin roasts is to make small incisions next to the bone as well as into the thicker part of the meat to be sure that the meat is thoroughly cooked. For hams and shoulders the only sure guide is a meat thermometer stuck into the center of the thickest portion of the cut to show that the meat is well done all through. However, 30 minutes to the pound is an approximate guide to sufficient cooking of large thick cuts of pork."

(2) All custard-filled and cream-filled pastries served have been rebaked, after filling, at an oven temperature of at least 425° F. for at least 20 minutes and cooled to 50° F. or less within 1 hour after rebaking; or the filling has been heated before the pastry shells were filled, so that every particle of the mix was held at a temperature of at least 190° F. for at least 10 minutes and cooled, either before or after filling the pastry shells, to 50° F. or less within 1 hour after heating.[23]

Because of the relatively large numbers of disease outbreaks, principally of staphylococcal food poisoning, reported as having been traced to cream-filled and custard-filled pastries (see *Public health reason*, above), the enforcement of preventive measures is of considerable importance. It is therefore considered desirable to refer here to some of the requirements of other portions of this ordinance and code which apply to the preparation and handling of these pastries, and briefly to discuss certain of the requirements.

Rebaking of the filled pastries, or cooking of the mix, if properly carried out, is reported to be adequate to kill the staphylococci which produce the enterotoxin responsible for many outbreaks.

Prompt cooling of the pastries or of the filling after heating is also required by (2), above, and storage at or below 50° F. thereafter is required by item 13. Refrigeration is important in order to prevent the growth, with possible enterotoxin production, of harmful organisms which may have survived inadequate

[23] To facilitate the procedures of enforcing these provisions in cases where the pastries used by a restaurant are obtained from bakeries, health officers who are in position to do so may require (by adding appropriate provisions to this ordinance or to the local ordinance or regulations, if any, on bakery sanitation) that cream-filled or custard-filled pastries be wrapped or packaged at the place of manufacture and prominently labeled with the name and address of the manufacturer.

heat treatment or which subsequently may have contaminated the filling due to faulty handling.

Item 15 requires that storage and handling be so done that the pastries will be protected from dust, flies, vermin, unnecessary handling, droplet infection, overhead leakage, and other contamination. Direct contact between employees' hands and the cream or custard filling should be avoided, in order to promote cleanliness and because organisms causing certain diseases may be present on unclean hands. For example, harmful staphylococci frequently have been found to have entered food from sores on the hands. Item 16 and section 9 require that employees shall keep their hands clean while handling food, drink, utensils, or equipment, and that persons with discharging or presumably infected wounds or sores shall not work.

Item 9 requires that utensils and equipment shall be so constructed as to be easily cleaned and shall be kept in good repair; the use of cloth filling bags is therefore prohibited. Cleaning and bactericidal treatment of utensils and equipment is required by item 10.

In addition to the specific provisions listed in the preceding paragraphs, the other applicable requirements of this ordinance and code should be satisfied.

(3) All milk, fluid milk products, ice cream, frozen custard, sherbet, ices, and similar frozen desserts served are from sources approved by the health officer. Pasteurized milk and milk products should be used where available.

(4) All milk and fluid milk products are served in the individual original containers in which they were received from the distributor, or from a bulk container equipped with an approved dispensing device complying with the following specifications:

SPECIFICATIONS FOR BULK MILK DISPENSER

(a) It shall comply with the requirements of item 9, construction of utensils and equipment.

(b) No surfaces with which milk or milk products come in contact shall while in use be accessible to manual contact, droplet infection, dust, or flies, but the delivery orifice may be exempted from this requirement.

(c) All parts of the dispensing device with which milk comes in contact, including any measuring device, shall be cleaned and subjected to bactericidal treatment at the milk plant, not at the retail vendor's establishment.

(d) The dispensing device shall be filled and sealed with two seals at the milk plant in such manner as to make it impossible to withdraw any part of its contents without breaking one seal and impossible to introduce any substance without breaking the other.

(e) It shall mix the milk and cream thoroughly and automatically with each dispensing operation. This requirement may be waived in the case of milk products which remain homogeneous without mixing.

In the case of milk drinks mixed at soda fountains, etc., this provision shall be interpreted as requiring that the milk used shall include the entire contents of the original container or shall be from an approved bulk dispenser. Mixing of milk drinks shall be done in a sanitary manner.

In enforcing this item the health officer may make an exception in the case of cream served with coffee, cereals, etc., as in this case it is impracticable to serve in the original container because of the fact that it is impossible for the distributor to deliver cream to the establishment in the unit-size containers which would be required in each case. Furthermore, the use of expensive bulk dispensers as described above may not be a defensible requirement for all soda fountains, restaurants, and similar establishments in the case of cream used for coffee, cereals, etc. For such service the health officer may permit transferring from the original bottle, or from a pump, urn, or other dispenser which complies with requirements (a) and (b) above, and which is filled in a sanitary manner, kept clean, and frequently subjected to bactericidal treatment complying with the requirements of item 10.

(5) All oysters, clams, and mussels are from a source approved by the State health department, provided that if the source is outside the State the shipper's name shall be on the current lists of certified dealers issued by the U. S. Public Health Service. Shucked shellfish shall be kept until used in the containers in which they were placed at the shucking plant.

The U. S. Public Health Service periodically issues lists of dealers, by name and State number, certified by State health departments whose shellfish sanitation control measures are endorsed by the Public Health Service. These lists are furnished to State health authorities and to the health authorities of all cities having a population of 25,000 or more, and to other interested persons or agencies. Shell stock shipments of interstate shippers are required to be labeled with the initials of the State and the shippers' certificate numbers. Shucked oysters, clams, and mussels shipped interstate are required to be packed in nonrefillable containers, identified by the initials of the State in which packed and the initials of the original packer-shipper. The purchaser should assure himself that the container is sealed and that it bears the initials or abbreviation of a State and a certificate number. The inspector should check the number against the lists of certified dealers.

ITEM 15. STORAGE, DISPLAY, AND SERVING OF FOOD AND DRINK

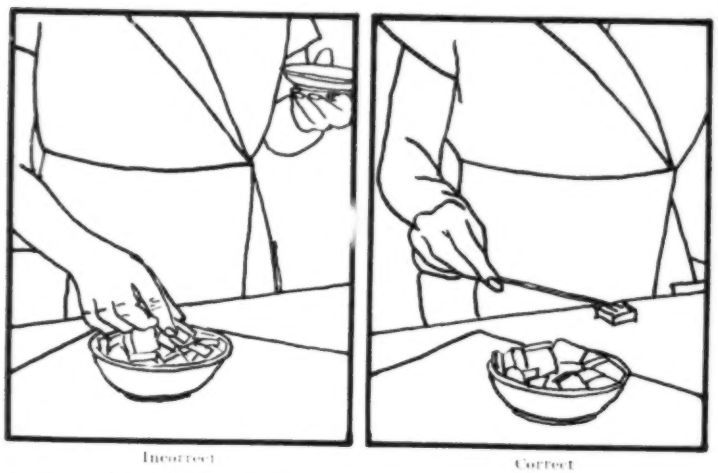
All food and drink shall be so stored, displayed, and served as to be protected from dust, flies, vermin, depredation and pollution by rodents, unnecessary handling, droplet infection, overhead leakage, and other contamination. No animals or fowls shall be kept or allowed in any room in which food or drink is prepared or stored. All means necessary for the elimination of flies, roaches, and rodents shall be used.

Public-health reason.—Food or drink not properly protected from contamination may become a public-health hazard.

Satisfactory compliance.—This item shall be deemed to have been satisfied if:

(1) All food and drink are stored and displayed in such manner as to be protected from dust, flies, vermin, unnecessary handling, droplet infection, overhead leakage and condensation, sewage back-flow, and

other contamination. Evidence of the presence of rodents, roaches, ants, or other vermin shall be considered as a violation of this item. Food or drink shall not be stored or prepared beneath overhead sewer or drain pipes unless such pipes are provided with suitable means to carry off possible leakage or condensation. Food or drink shall not be stored on floors which are subject to flooding from sewage back-flow, such as those below street level. On new construction the location of a restaurant in a basement below the surface of the ground shall be discouraged. The pouring lips of bottles containing milk or other beverages in non-leakproof containers shall not be submerged in water for cooling.



Incorrect Correct

Courtesy Colorado Medical School.

FIGURE 9. Methods of handling butter.

(2) All food and drink are handled and served in such manner as to minimize the opportunities for contamination. Serving of sliced butter and cracked ice shall not be by direct contact with fingers or hands, and manual contact with all food or drink shall be avoided insofar as is possible. Sugar shall be served only in covered dispensers or in containers or wrapped packages for individual service; containers should preferably be so designed that a spoon cannot be inserted.

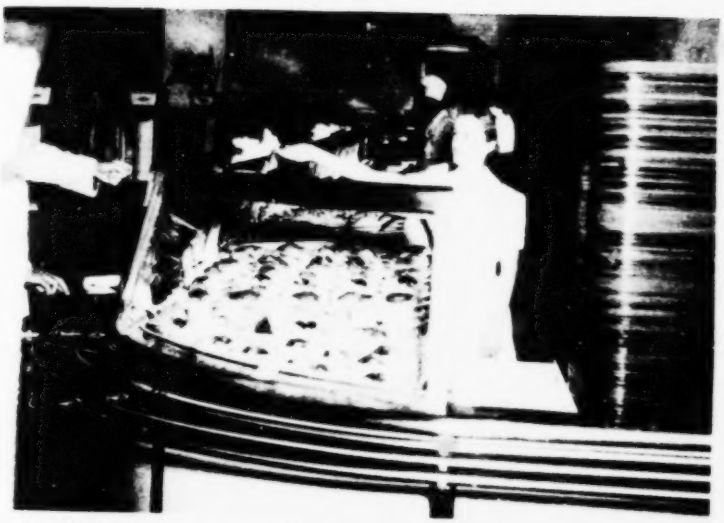
(3) All unwrapped or unenclosed food and drink on display are protected by glass or otherwise from public handling or other contamination, except that approved hand openings for self-service may be permitted on counter fronts.

(4) No animals or fowls are kept or allowed in any room in which food or drink is prepared or stored.

Courtesy Tex. - State Department of Health

FIGURE 10.—Satisfactory storage of pies in closed cabinets.

Also note covered sugar dispensers and covered cheeses.



Courtesy Texas State Department of Health

FIGURE 11.—Food protected by glass cover.

Also note silverware completely wrapped in napkins and employees clean uniforms.

(5) All enclosed spaces within double walls, between ceilings and floors, beneath floors, and in fixtures and equipment, which provide harborage and potential breeding places for rodents, have been eliminated by the removal of the sheathing or interior walls which form the enclosed spaces; or all exposed edges of such walls, floors, and sheathing have been protected against gnawing by rats by the installation of approved ratproof material, and all openings in walls, floors, and ceilings through which pipes, electric cables, and other conduits pass have been properly sealed with snugly fitting collars of metal or other approved ratproof material securely fastened in place and so maintained; and propagation of rats and invasion and infestation of the premises by them has been permanently prevented. (For information on specific ratproofing methods, see *The Rat and Ratproof Construction of Buildings*, Supplement No. 131 to the Public Health Reports, U. S. Public Health Service).

(6) All supplementary means necessary for the elimination of flies, roaches, and rodents are employed. For the elimination of flies, fly-repellant fans, flypaper, fly traps, or fly-killing sprays or powders may be used. All poisonous compounds used in the extermination of rodents or insects shall be so colored as to be easily identified; however, poisonous substances should be used with extreme caution and compounds harmless to humans should be substituted wherever possible.

ITEM 16. CLEANLINESS OF EMPLOYEES

All employees shall wear clean outer garments and shall keep their hands clean at all times while engaged in handling food, drink, utensils, or equipment. Employees shall not expectorate or use tobacco in any form in rooms in which food is prepared.

Public-health reason.—Clean clothing and clean hands reduce the likelihood of contaminating food, drink, and utensils during handling. The use of tobacco tends to promote careless food handling methods and may promote spitting and the contamination of the fingers and hands by saliva. Disease organisms present in saliva may be transmitted to food or utensils directly by fingers or indirectly by flies or vermin.

Satisfactory compliance.—This item shall be deemed to have been satisfied if:

(1) The outer garments of all persons, including dishwashers, engaged in handling food or utensils are reasonably clean and are used for no other than restaurant duty. Clean uniforms, coats, or aprons shall be considered satisfactory. The use of hair nets, head bands, or caps is recommended.

(2) The hands of all persons are kept clean while engaged in handling food, drink, utensils, or equipment.

(3) There is no evidence of spitting or of the use of any form of tobacco by employees in rooms in which food is prepared.

Education of food handlers is probably the most effective method of obtaining compliance with sanitation requirements. Control officials are therefore urged to undertake training courses for food handlers in their communities. Restaurant employees should have some knowledge of food-borne diseases and modes of transmission, should be thoroughly acquainted with the requirements of this ordinance, should not work when ill or with discharging or presumably infected sores or wounds (see section 9), and should be meticulous about personal hygiene, particularly cleanliness of hands and nails. Manuals for instruction of food handlers are available from a number of sources, including the City Department of Public Health, Flint, Michigan, the State Health Department, Austin, Texas, and the Public Health Service (*From Hand to Mouth*, U. S. Government Printing Office, 1943).

ITEM 17. MISCELLANEOUS

The premises of all restaurants shall be kept clean and free of litter or rubbish. None of the operations connected with a restaurant shall be conducted in any room used as living or sleeping quarters. Adequate lockers or dressing rooms shall be provided for employees' clothing and shall be kept clean. Soiled linens, coats, and aprons shall be kept in containers provided for this purpose.

Public-health reason.—Good housekeeping promotes cleanliness.

Satisfactory compliance.—This item shall be deemed to have been satisfied if:

(1) The premises are clean and free of litter and rubbish, which shall be disposed of as required for the restaurant wastes by item 12.

(2) None of the operations connected with the establishment is conducted in any room used as living or sleeping quarters.

(3) Dressing rooms or adequate lockers not located in the kitchen are provided for employees' clothing and are kept clean.

(4) Containers are provided and soiled linens, coats, and aprons are kept therein.

(GRADE B RESTAURANTS

Grade B restaurants are those which fail to comply with item 1, 2, 4, 5, or 17, but which conform with all other items of sanitation required for grade A restaurants.)[5]

Where the grading form of the ordinance is in effect, the above definition is designed to represent restaurants which fail to meet certain grade A requirements that are not of major public health significance. (Restaurants which fail to meet any one of the more important of the grade A requirements on two successive inspections are degraded to grade C.)

[5] See footnote 1, p. 5.

In communities which are not yet in position to limit operations to restaurants of the highest grade only, this definition serves as the specifications for the second grade.

In other municipalities, which under section 7 permit none but grade A restaurants to operate (except during temporary degrading periods), grade B serves a useful role as a penalty grade to which grade A restaurants may be temporarily degraded for minor violations which the health officer would hesitate to punish with so severe a penalty as suspension of permit.

(GRADE C RESTAURANTS

Grade C restaurants are those which fail to comply with either the grade A or the grade B requirements.)[5]

Where the grading form is in effect, this definition is designed to serve as a temporary penalty grade for those restaurants which fail to satisfy the grade A or the grade B requirements. If any restaurant which has been degraded to grade C fails to qualify for a higher grade within the period specified in section 7, its permit is suspended or revoked.

ITINERANT RESTAURANTS

Itinerant restaurants shall be constructed and operated in an approved manner.

The definition of an itinerant restaurant is given in section 1 (B).

The health officer should approve an itinerant restaurant only if it complies with the following sanitation requirements:

It shall be located in clean surroundings and kept in a clean and sanitary condition. It shall be so constructed and arranged that food, drink, utensils, and equipment will not be exposed to insects or to dust or other contamination. Only food and drink which is clean, wholesome, and free from adulteration shall be sold or served. An adequate supply of water of safe, sanitary quality shall be easily available and used for drinking and for cleaning utensils and equipment. If multiuse utensils are used in the serving of food or drink, they shall be thoroughly washed with hot water and a satisfactory detergent and effectively subjected to an approved bactericidal process after each use and so handled and kept as to be protected from contamination. Adequate provision shall be made for refrigeration of perishable food and drink. Ice used in or with food or drink shall be from a source approved by the health officer and so handled as to avoid contamination.

Garbage and refuse shall be kept in tightly covered, watertight containers until removed and shall be disposed of in a place and manner approved by the health officer. Dishwater and other liquid wastes shall be so disposed of as not to create a nuisance.

No person suffering from any disease transmissible by contact or through food or drink or who is a carrier of the germs of such a disease shall be employed in any capacity. Adequate and satisfactory toilet and hand-washing facilities shall be readily accessible to employees. No person engaged in the handling or serving of food or drink shall return to his work, after using the toilet, without first thoroughly washing his hands.

Upon failure of any person maintaining or operating an itinerant restaurant, after warning, to comply with any of these requirements, it shall be the duty of the health officer summarily to forbid the further sale or serving of food or drink therein. Any person continuing to sell or serve food or drink in such a restaurant after being so forbidden, shall be subject to the penalties provided for violation of this ordinance.

SECTION 7. (GRADE OF)[5] RESTAURANT WHICH MAY OPERATE

From and after 12 months from the date on which this ordinance takes effect no restaurant shall be operated within the city of ----------, or its police jurisdiction, unless it conforms with the (grade A, or grade B,[24] or approved itinerant restaurant)[5] requirements of this ordinance: Provided, That when any restaurant fails to qualify (for any of these grades)[5] the health officer is authorized to suspend the permit (or in lieu thereof to degrade the restaurant and permit its operation during a temporary period not exceeding 30 days).[5]

SECTION 8. REINSTATEMENT OF PERMIT (; SUPPLEMENTARY REGRADING)[5]

Any restaurant (the grade of which has been lowered and all grade displays have been changed accordingly, or)[5] the permit of which has been suspended may at any time make application for (regrading or)[5] the reinstatement of the permit.

Within one week after the receipt of a satisfactory application, accompanied by a statement signed by the applicant to the effect that the violated provision or provisions of this ordinance have been conformed with, the health officer shall make a reinspection, and thereafter as many additional reinspections as he may deem necessary to assure himself that the applicant is again complying with the (higher grade)[5] requirements, and, in case the findings indicate compliance, shall (award the higher grade or)[5] reinstate the permit.

No application for regrading upward should be considered by the health officer unless the restaurant in question has complied with the

---

[5] See footnote 1, p. 5.

[24] Municipalities in position to do so may delete ", or grade B,".

requirements and interpretation of section 4 of this ordinance relative to the display of grade signs after having been degraded.

SECTION 9. DISEASE CONTROL

No person who is affected with any disease in a communicable form or is a carrier of such disease shall work in any restaurant, and no restaurant shall employ any such person or any person suspected of being affected with any disease in a communicable form or of being a carrier of such disease. If the restaurant manager suspects that any employee has contracted any disease in a communicable form or has become a carrier of such disease he shall notify the health officer immediately. A placard containing this section shall be posted in all toilet rooms.

The above requirement prohibits persons having or suspected of having any disease in a communicable form or who are carriers or are suspected of being carriers of such disease from employment in any restaurant. No person having a discharging or presumably infected wound, sore, or lesion shall handle food, drink, utensils, or equipment.

This ordinance does not require routine medical examinations for food handlers because it is felt that the conflicting opinions of health officers on the value of such examinations do not warrant such a requirement.

The experience of New York City as reported by Dr. William H. Best (*Is Routine Examination and Certification of Food Handlers Worth While?* American Journal of Public Health, **27,** 1003–6, Oct. 1937) indicated that the procedure of having such examinations made by private physicians was unsatisfactory and that the cost of medical examinations made by the health department was not commensurate with the public-health benefits obtained. Accordingly, not even initial health examinations—to be made before or at the time of employment—are required by this ordinance, which is recommended for general adoption. For further discussion of this subject, see Fuchs, A. W., *The U. S. Public Health Service Restaurant Sanitation Program.* American Journal of Public Health, **32,** 848–52 (Aug. 1942); Journal of Milk Technology, **4,** 305–10 (Nov.–Dec. 1941). However, communities which consider it desirable to include such a requirement in the ordinance as adopted locally may do so if their official facilities for making the examinations are adequate. For such cases, it is recommended that the following material be added to section 9:

The health officer or a physician authorized by him shall examine and take a careful morbidity history of every person connected with a restaurant, or about to be employed, whose work brings him in contact with the handling of food, drink, utensils, or equipment. If such examination or history suggests that such person may be a carrier of or infected with the organisms of typhoid or

paratyphoid fever or any other communicable diseases likely to be transmitted through food, drink, or utensils, he shall secure appropriate specimens of body discharges and cause them to be examined in a laboratory approved by him or by the State health authorities for such examinations, and if the results justify such person shall be barred from such employment.

Such persons shall furnish such information, submit to such physical examinations, and submit such laboratory specimens as the health officer may require for the purpose of determining freedom from infection.

In carrying out this requirement the following procedure shall be required for every restaurant employee who comes in contact with food, drink, utensils, or equipment. The examination shall include a history and, where necessary, examinations for typhoid fever, paratyphoid fever, diphtheria, and tuberculosis, blood specimens for typhoid and paratyphoid agglutination tests, nose and throat cultures on Loeffler's blood serum, and, in cases showing clinical symptoms of tuberculosis, specimens of sputum. The examination of laboratory specimens shall be considered necessary when the history suggests the occurrence at any time of typhoid or paratyphoid fever, or recent infection with or exposure to any other disease transmissible through food, drink, or utensils.

The following shall be barred from employment in a restaurant:

(a) A person who has not been immunized against typhoid fever within 2 years, and who shows a positive or atypical Widal, or a person who gives a history of typhoid fever, unless such person is willing to have 3 sets, or more if required, of specimens of feces and urine collected by the health officer, in a manner prescribed by the health officer, or if any of said specimens prove positive, or

(b) A person who is found to harbor virulent diphtheria organisms, or

(c) A person showing significant clinical or laboratory evidence of active tuberculosis.

Any of the above determinations which the local laboratory is not equipped to make may be made by the laboratory of the State health authority.

SECTION 10. PROCEDURE WHEN INFECTION SUSPECTED

When suspicion arises as to the possibility of transmission of infection from any restaurant employee the health officer is authorized to require any or all of the following measures: (1) the immediate exclusion of the employee from all restaurants; (2) the immediate closing of the restaurant concerned until no further danger of disease outbreak exists, in the opinion of the health officer; (3) adequate medical examinations of the employee and of his associates, with such laboratory examinations as may be indicated.

SECTION 11. ENFORCEMENT INTERPRETATION

This ordinance shall be enforced by the health officer in accordance with the interpretations thereof contained in the 1943 edition of the U. S. Public Health Service Code Regulating Eating and Drinking Establishments, a certified copy of which shall be on file at the City Clerk's office.[25]

---

[25] See footnote 2, p. 1.

Certified copies of this ordinance and code may be obtained for use as official file copies upon request from the U. S. Public Health Service.

SECTION 12. PENALTIES

Any person who violates any provision of this ordinance shall be fined not more than _____ at the discretion of the court having jurisdiction. Each and every violation of the provisions of this ordinance shall constitute a separate offense.

This section must be worded in accordance with the city charter and the State constitution. Where legally possible the desirability is suggested of prescribing a minimum fine and an increase in fine for second and subsequent offenses.

SECTION 13. REPEAL AND DATE OF EFFECT

All ordinances and parts of ordinances in conflict with this ordinance are hereby repealed, and this ordinance shall be in full force and effect immediately upon its adoption and its publication as provided by law.

SECTION 14. UNCONSTITUTIONALITY CLAUSE

Should any section, paragraph, sentence, clause, or phrase of this ordinance be declared unconstitutional or invalid for any reason, the remainder of said ordinance shall not be affected thereby.

INDEX TO CODE

	Page
Adulterated food or drink	16
Animals	46
Bacterial count	33, 34
standard for sterilized equipment	33, 34
Bactericidal process, approved	28, 29, 30
treatment of utensils and equipment	27, 37
Bactericides, other than chlorine	31, 32
Bacteriological examination of utensils	33, 34
Basement restaurants	45, 46
Butter, serving of	46
Cadmium in utensils	23
field test for	24
Cafe, short order	13
Ceilings	20
Certification of shellfish	45
Chinaware—*See* Utensils and equipment.	
Chlorine, bactericidal treatment with	29, 30, 31
test for strength of	30, 31
Cleaning:	
floors	19, 20
utensils and equipment	27, 37, 50
Cleanliness of employees	48, 49
Cloths, drying	28, 32, 37
Clothes, employees	48
Condemnation of unwholesome food or drink	16
Construction of utensils and equipment	23, 24
Contamination, protection from	27, 37, 38, 39, 45, 46
Containers, milk	39, 40, 44
Counters	23, 27, 46
Cream	39, 44, 45
dispensers, specifications for	45
filled pastries	43, 44
Custard-filled pastries	43, 44
Cyanide	27, 37
field test for	37
Definitions	13, 14
Degrading	16, 50, 51
Detergents	28, 50
Dippers and scoops for ice cream	37
Disease control	51, 52, 53
outbreaks	53
water	23
milk and milk products	42
foods other than milk and milk products	41
Dishes—*See* Utensils and equipment.	

	Page
Dishwashing, manual	27, 28
machines	32, 33
Disinfection—*See* Bactericidal treatment.	
Dispensers, cream, specifications for	45
milk, specifications for	44
Display cases or windows	23
of food	45, 46
of grade notice	15
Disposal of wastes	38, 39
Doors and windows	20, 22
Drain racks	37
Dressing rooms or lockers	49
Drink:	
display	45, 46
handling	45, 46
refrigeration	39
serving	45, 46
storage	45, 46
wholesomeness	39, 40, 42, 43, 44, 45
Drying cloths	27, 32, 37
Education, training courses for employees	49
Employees:	
cleanliness	48
definition	13
health	51, 52, 53
training courses	49
Enforcement interpretation	53
Equipment:	
bacterial count	33, 34
bactericidal treatment	27, 37, 44, 50
bacteriological examinations	33, 34
cleaning	28, 44, 50
construction	23, 24, 44
handling	37
protection from contamination	37
storage	37
Examination and condemnation of unwholesome or adulterated food or drink	16
Flies	20, 22, 37, 45, 48
Floors	19, 20, 37, 38, 46
Food:	
adulterated	16
disease outbreaks from	40, 41
display	46
handling	46
perishable	39
refrigeration	39
serving	46
storage	45, 46
wholesomeness	39, 42
Food and Drug Administration	16
Food Handlers—*See* Employees.	
Food poisoning outbreaks	16, 41, 42

Page

Form:
- inspection, for eating and drinking establishments 16, 17, 18
- inspection record 16
Fowl 45, 46
Frozen desserts 39, 44
Garbage 38, 39, 50
- receptacles 38, 39
- removal 38
Glassware, cleaning 29
- *see* Utensils and equipment.
Grade A restaurants 17, 49
Grade B restaurants 49
Grade C restaurants 50
Grades of restaurants which may operate 51
Grade notice, display of 15
Grading of restaurants 18, 19
Handling, food and drink 46
- utensils and equipment 37
Hands 21, 22, 46, 48, 49
Handwashing facilities 23
- signs 21, 22
Health examinations 52, 53
- officer, definition 14
Hoods 24
Hot air, bactericidal treatment with 31
Ice 39, 50
Ice cream and other frozen desserts 37, 39, 44
- dippers and scoops 37
Infection, procedure when suspected 53
Insecticides and raticides, distinctive coloring 48
Inspection form 18
- frequency of 17
- of restaurants 16, 17, 18
- record form 18
- report 18
Itinerant restaurants 13, 14, 50, 51
Lavatory facilities 23
Lead, in utensils 23, 24
Lighting 21
Lockers or dressing rooms 49
Milk and milk products:
- disease outbreaks from 42
- dispensing devices, specifications 44, 45
- serving 39, 40, 44
- sources 39, 44
- storage 45, 46
Milk dispensers, specifications for 39
Miscellaneous requirements 49
Multi-use utensils—*See* Utensils and equipment.
Napkins 28, 37
News releases 18, 19
Notification of disease 52

	Page
Outbreaks of disease	23, 41, 42, 53
Oysters	39, 40, 45
Paper containers and utensils	28, 37
Pastries, cream-filled and custard-filled	43
Penalties	17, 50, 54, 54
Perishable foods	39
Permits:	
issuing	14
posting of	14
reinstatement	51
renewal	14
revocation	14, 50, 51
suspension	14, 16, 17, 51
Person, definition of	14
Personnel, training courses for	49
health	51, 52, 53
Physical examination of food handlers	52
Placards	15, 52
Placarding and public display of grade notice	15
Plumbing	38
Poisonous substances	24, 34, 48
Pork and pork products, treatment to kill trichinae	42, 43
Premises, cleanliness	49
Privies	21, 22
Procedure when infection suspected	53
Protection from contamination:	
food and drink	45, 46
utensils and equipment	37
Public-health reasons. *See* Individual sanitation items.	
Raticides and insecticides, distinctive coloring	48
Ratproofing of building	48
Refrigeration	39
to kill trichinae	44
Refrigerating equipment	23
Regrading	51
Reinspection	16, 51
Reinstatement of permit	51
Repeal and date of effect	54
Restaurants:	
definition	13
Grade A	17, 49
Grade B	49
Grade C	50
grading	18
inspection	18, 19
itinerant	13, 14, 50, 51
sanitation requirements for	17, 51
(grades of) which may operate	51
Rodents, roaches, ants	45
Sanitation Advisory Board	v
requirements for restaurants	17, 51
Screening	20
Serving of food	46, 48, 50

	Page
Shellfish	39, 40, 45
Shelves	23, 27, 37
Short enabling forms of ordinance	1, 3
Silverware, blackening	27
see also Utensils and equipment.	
Single-service containers and equipment	28, 37
Sinks	23, 27, 29, 30
Standard, bacterial for sterilized utensils	33
Steam, bactericidal treatment with	31
Sterilization—*See* Bactericidal treatment.	
Storage, display, and serving of food and drink	45, 46, 48, 50
and handling of utensils and equipment	37, 48, 50
rooms, lighting	21
Stoves	28
Sugar dispensers	46
Swab test of utensils	33, 34
Sweeping	19
Tables	23, 27
Tablecloths	27
Tableware	30
Test, swab, for sterilized utensils	33, 34
Tests:	
cadmium in utensils	24
chlorine strength	30
cyanide in polishes	37
swab, for sterilized utensils	33, 34
Thermometers	29, 31, 43
Tobacco, use of, prohibited	48
Toilets	21, 22, 38, 52
Towels, hand	23
utensil	32
Training courses for employees	49
Trash and rubbish	38, 49, 50
Trays	37
Unconstitutionality clause	54
Uniforms for employees	48
Unwholesome or adulterated food or drink	16
Utensils and equipment:	
bactericidal treatment	27, 37, 44, 50
bacteriological examination	33
cleaning	27, 28, 29, 44
cleaning, poisonous substances forbidden	34
construction	23, 24, 44
definition	13, 14
disease transmission by	22
drying	32
handling	37
protection from contamination	37
storage	37
V-type threaded surfaces	24
Ventilation	21

	Page
Walls and ceilings	20
Washing of utensils and equipment—*See* Cleaning, and Bactericidal treatment of utensils and equipment.	
Wastes, disposal of	38, 39
Water supply	22, 23, 50
Wholesomeness of food and drink	39–45
Windows	20

○

PHS Publication No. 37
(Formerly Public Health Bulletin No. 280, Reprinted 1948)

UNITED STATES
GOVERNMENT PRINTING OFFICE
WASHINGTON : 1950